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ABSTRACT

The Higher Education Amendment of 1968 provided for support services on college and university campuses to facilitate the progress of disadvantaged young people (from families within the national poverty criteria or the physically handicapped). Three years later an evaluation of the special service programs (typically including specially staffed activities such as counseling, tutoring, remedial study, and ethnic identity activities) was conducted to determine effects of students' progress, satisfaction, and perceptions. Methodology included review of the literature, census of institutions, and collection of questionnaire and interview data from program directors and students. The interview data was obtained from a national sample selected from the 190 projects, involving more than 50,000 students, which were in operation in the 1971-72 school year. Major conclusions are there is no evidence that availability of or participation in support services systematically improves performance and satisfaction with college over that which may be expected from previous academic performance; institutional differences account more for differences in disadvantaged student success and satisfaction than do supporting services; in understanding behavior and attitude, race is more critical than poverty or physical handicaps; and forces to equalize opportunity seem to be working better for poor whites and blacks than for poor Orientals, Mexican Americans, Puerto Ricans, Native Americans, or other ethnic minorities. (JT)

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The Impact of Special Services Programs in Higher Education for "Disadvantaged" Students

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Foreword

To say that the conduct of this evaluation study was an experience is an understatement. It was an intense, provocative and tantalizing opportunity to participate in the lives of many individuals and groups, and to observe and to feel in many ways--from straining for empathy with a highly successful but homesick student in Albuquerque who wanted to go home, back to impoverished but familiar surroundings--to successive reorganizations of eight billion bits of empirical data by computer. But most significant of all, the project's concern and ours focused on the lives, dignity, and future of more than half a million young people enrolled in college despite the disadvantage of poverty, minority group origin, or physical handicap and the progress being made toward the provision of better opportunity for them and for their peers who were left behind. For the research team, it was the challenge of researching an area in which much work has been done, as with the American Indian, but in which the results have yielded few useful understandings and little or no evidence of beneficial impact.

The report that follows is the work of many people. First, the research team represented a multi-racial, multi-specialty group who, for the better part of two years, made the inquiry their life. Second, a battery of consultants and collaborators, usually representing one or another ethnic minority group, frequently joined and worked with the research team to clarify understandings when these were difficult to achieve. More than a hundred student cohorts pressed beyond the usual high limits of their energy and personal prejudices, to gather and sort data, and to help with the interpretations. Institutional representatives, presidents, and other staff in 122 colleges suffered substantial indignities in helping with a variety of requests. Of the utmost importance was the high level of concern, technical competence, cooperation, and unlimited assistance of many federal staff, particularly the program staff in the USOE regional offices. Probably nowhere in the federal organization are so many good people seized with a sense of urgency of mission; their skill and assistance helped greatly. Of the most critical importance was the superb, thorough, and constant professional guidance by the project officer for USOE, Dr. Robert Berls, of the Office of Planning, Budgeting, and Evaluation and Dr. Sal Corrallo, whose complete and utter devotion was directed to assuring an inquiry of integrity that would truly facilitate the higher educational needs of the nation's poor.

An adequate list of credits would start with the black student cohort who wrote: "I thought I knew my people until I sought them out." Such a list is impossible, and singling out any is unfair in some ways. Nevertheless, some of the principal and critical contributors should be acknowledged.

On the research team itself: Chuck Stone, now of the Philadelphia Daily News, served as co-director during the planning phase. He often brought us closer to an open consideration of real issues. Anne Borders-Patterson led staff efforts in student contact, in addition to many other chores. Responsible for problems of design and data analysis was Graham Burkheimer. James H. Brewer, Jonathan Warren, Santelia Johnson, and Jayjia Hsia served as principal organizers and conductors of the site visits. Of many consultants who touched the project significantly, Grayson Noley, of Oklahomians for Indian Opportunity, and A. J. Franklin of Medger Evers College in Brooklyn assumed much more responsibility than required, to the project's benefit. Charles Barr of the Princeton Office saw that difficult administrative procedures always ran smoothly. Research Assistants Susan Kerner-Hoeg, Adele Richardson, Steve Batchelor, Brian McNally, Susan Neuenschwander, Will Rice, and Mary Phillips sorted and compiled from the two tons of paper produced. Other ETS staff assisting in critical ways included Al Carp and Richard Peterson in the Berkeley Office; Dan Gomez in the Los Angeles Office, Phillip Harvey and Virgil O'Connor in Evanston, Clyde Aveilhe in Washington, and, from the Princeton Office, Sam Barnett, Ron Samuda, and a host of others.

Particular responsibility for some of the chapters in the report should be acknowledged. Graham Burkheimer is the principal author of Chapters 4 and 6 and of the report of the all-institution census printed separately.

The principal author for Chapter 7, the report of the student interviews, is Anne Borders-Patterson. Providing major assistance to her, however, were Grayson Noley, A. J. Franklin, Roberta Ramirez Eldred, Neftali Negron (a Puerto Rican student interviewer) and Dennis Clark (a disabled student). In addition, a number of disadvantaged students of various ethnic backgrounds studied the interviews with the research team, and assisted in the summations of data and framing of conclusions; others, representing the different subgroups, who served as interviewers, read and helped revise the final draft.

The principal author for the report of program director recommendations is Mary Phillips. Chapter 8, the site visit report, is the work of Dr. Howard Boozer, formerly of the RCA Corporation and now Executive Director of the South Carolina Commission on Higher Education, and Dr. James Brewer, Director of the Afro American Studies Program, University of North Carolina.

Initial preparation of the manuscript was headed by Marie Pattillo and Barbara Manning; final copy was produced by Betty Clausen, Marie Davis, Kathleen Estep, Laura Lenz, Robin Pollock, Mary Evelyn Runyon, and Frances Shaffer.

The project director, while acknowledging the foregoing, accepts, of course, the usual responsibilities for sins and errors in the design, the carrying out, and the reporting of the study.

J. A. Davis
Project Director

Executive Summary

The Impact of Special Services Program in Higher Education for "Disadvantaged" Students

I. BACKGROUND

The Higher Education Amendments of 1968 (Title 1, Part A, Section 105, PL 90-575) provided for an activity of support services on college and university campuses, designed to facilitate the progress of disadvantaged young people through higher education. These federally financed programs typically involve a collection of special efforts, specially staffed, such as counseling, tutoring, remedial study, and ethnic identity activities; they are to be directed toward the disadvantaged, who are defined by the legislation and the program guidelines as individuals from families within the national poverty criteria, or the physically handicapped. In the second operational year (1971-1972), 190 "Special Services" projects involving more than 50,000 students, were in operation on campuses across the country.

In the spring of 1971, the Office of Planning, Budgeting, and Evaluation of USOE requested an evaluation of the Special Services programs. The most essential purpose of the resultant inquiry, conducted by Educational Testing Service under contract number OEC-0-72-0116, was the determination of the effectiveness of these programs, as reflected by the progress, satisfaction, aspirations, and perceptions of the young people involved. Other purposes included the assessment of the broad need for Special Services, and directing findings toward the improvement of proposal review and award, and project monitoring procedures.

II. METHODOLOGY

Several different strategies were used in the assembly and analysis of data relevant to the understanding and assessment of impact of the Special Services programs. First a near-exhaustive review of the related literature (on treatment and performance of poverty, minority or physically handicapped, in higher education institutions) was conducted and reported. Second, a census of all institutions of higher education in the United States was undertaken by brief mail questionnaire, to provide estimates from special institutional reports of the number and distribution of disadvantaged and of the kinds of support programs provided for them. Third, a national sample was drawn of 120 institutions across all types of institutions but focusing on those with substantial numbers of disadvantaged (and stratified to provide institutions with and without federally supported Special Services, and with one or another of the minority groups containing a preponderance of disadvantaged). Utilizing this sample, mail questionnaires were directed to presidents on program and institutional characteristics; and, samples of (a) disadvantaged and (b) non-disadvantaged students in each institution were administered (through an institutional representative) a questionnaire soliciting information on the student's personal and academic background, his experiences with any support services programs or program components, his success and satisfaction in college, and his aspirations. Fourth, toward amplifying and/or understanding the nuances of the statistical findings, a portion of the disadvantaged student population was engaged in intensive interviews by peers commissioned to this task and using a semi-structured interview guide, in a subset of 60 institutions in the sample. A subset of 31 campuses from the total sample of 120 with programs judged to cover the range of possible success were visited by higher education or minority education specialists, and reports of observations prepared. Data gathering activities were completed in the late summer of 1972.

III. RESULTS

The formal review of the literature revealed much rhetoric, but little empirical evidence as to the impact of intervention efforts with disadvantaged students, however defined. Where studies dealt with academic performance and persistence, conflicting results are obtained, suggesting a variety of causative factors not adequately controlled--e.g., institutional differences in grading standards, or subtle individual or program characteristics. Another problem, in addition to those of paucity of empirical studies and inadequate controls, is the absence of any clear conceptualization of disadvantage. Otherwise: family income is still a powerful predictor, along with past academic performance and scores on conventional academic tests, of who goes to and persists in college; although gaps are closing, racial parity--particularly for the Chicano and Native American--does not yet exist. And, for the minority disadvantaged enrolled in a traditional college, possible differences in academic potential seem, from observation and from his report, to be minor in contrast to differences in social opportunities, availability of faculty and programs with which he may identify, and the presence of perceived prejudicial practices of the same sort experienced in the society at large.

Findings from the all-institution census are limited or qualified by the fact that not all institutions responded to the survey, and by the absence of good institutional data on which to base some requested estimates (e.g., numbers of disadvantaged on campus). Nevertheless the findings suggest that in 1971-1972 about one in seven (or 14 percent) of the nation's enrolled undergraduates came from families within the national poverty classification. Their distribution among colleges, however, was most uneven: e.g., one-third of the reporting institutions estimated less than five percent of their student population were disadvantaged, while about 20 percent reported more than one-quarter of their student population in this category. Higher proportions of disadvantaged were reported by: non-selective institutions; non-residential institutions; publically supported institutions; two-year institutions; traditionally black colleges; and non-accredited institutions. With regard to providing any support service programs expressly for disadvantaged, somewhat less than half, but at least 25 percent, of the nations' colleges and universities offered such facilitation. Institutions with federally supported Special Services programs tended to be those which, in comparison with all institutions, enrolled larger proportions of disadvantaged. With regard to reported structure and costs (excluding cost of financial aid), the typical or median program (however funded) involved two full-time staff members and two faculty members, serving 50 full-time equivalent students at a cost per FTE student of $673 per year; federally supported programs tended to serve more FTE students, through more staff (if not faculty), at a slightly higher cost per student. Finally, the prime source of support for the existing programs was federal funding, with only about 15 percent of the programs funded exclusively by state or local government, 15 percent exclusively by regular institutional funds, and less than 10 percent exclusively by private foundations. The respondents to the census questionnaires judged it unlikely that these programs would or could exist without federal funds.

The other strategies employed in this evaluation (e.g., student questionnaire surveys and interviews; site visits) were directed toward the determination of any impact of Special Services or similar programs on students and on the institutions, and toward illuminating the circumstances and conditions under which the programs operate. Difficulties that may limit the findings summarized here include: differential success, by institutional representatives, in identifying disadvantaged students, securing their involvement in the study, and following a sampling plan; failure of this broad scale study to look intensively at possible qualitative differences in program elements (e.g., counseling); conscious or unconscious slanting of perceptions by the reporters who were involved in the target programs; and, the subjectivity of some of the analytic strategies (e.g., site visits; interview report analyses).

The central purpose of the evaluation effort was to determine, of course, if the special facilitation by the federally supported programs was associated with improved student performance and satisfaction with college, more positive self-perception, and revised aspirations. Two complicating factors emerge from the data, however. The first is; there are greater differences among the several ethnic groups of college students on these qualities than between poverty versus non-poverty origin students or between physically handicapped versus non-handicapped students. A second qualifying finding: there appears to be considerable variation among student groups from different institutions because of intrinsic institutional factors: heterogeneity of student body; prevailing climates of morale; programs offered; standards and attrition rates; etc. In short: race appears to be a stronger determinant of characteristic behavior and attitudes of central interest in the evaluation than poverty or physical handicap; and institutional context, including prevailing general practices of evaluating student performance, affects strongly what happens to the student. Average prior performance levels in secondary school vary by ethnic group; and, each disadvantaged sub-group appears to have distinctive needs, sensitivities, vulnerabilities, and assets. For example, the driving needs of the disabled are those of physical facilitation, interaction with normal people, and attainment of vocational competence; or, poor whites seem free of stigmas associated with being part of an easily identifiable minority; or, Native Americans appear to have the most discrepant culture from that traditionally served in higher education institutions.

In general, poverty origin students were found more likely (than non-poverty origin students) to report unusual persistence in study activity; to hold a paid job while studying; to have financial support (almost half of the poverty level students reported having assumed some form of loan). Whites and non-poverty minority groups were found to have more positive self images than did their ethnic or poverty cohorts, and to be more satisfied with their college experience. Poverty level students in general reported a higher degree of participation in support service activities than did either the physically handicapped or non-poverty students (although there are ethnic group differences: e.g., poor Native Americans and poor whites participated less frequently than their non-poverty cohorts in tutoring and counseling). The majority of students using support services stated they found it helpful; there were no differences in perceived helpfulness across ethnic groups or between poverty versus non-poverty students.

The finding of the most importance with regard to the central purpose of the study, however, is: there is no clear and consistent evidence that the availability and/or use of Special Services programs, is related to the success or satisfaction of the disadvantaged student in general. Grades in college appear to be the usual function of past performance in high school, without regard to experience (or lack of it) with support services. In fact, college grades of poverty level students were lower in institutions with Special Services programs than in non-participating institutions, while there were no differences between non-poverty students' grades at these two types of institutions; but, these differences appear to be a function of prior performance levels of the subgroups of students, not of the special support programs of the institutions.

With regard to expressions of satisfaction with various aspects of the college experience, comparisons of regular students with disadvantaged students grouped by institution suggest that racial and institutional type differences appear to control the findings, rather than simple presence or absence of Special Services programs. For example, at predominantly black institutions, students in general appeared more satisfied at institutions not participating in Special Services programs (except with the personal financial situation) than at participating institutions. At predominantly white institutions, however, the Native American students showed consistently greater satisfaction at the nonparticipating institutions, but the Puerto Rican students showed greater satisfaction at the participating institutions. Also, there is a greater similarity between the satisfaction indices of the physically handicapped and modal students at participating institutions than at nonparticipating institutions. In short, the standard package approach of Special Services seems to affect different sub-groups of disadvantaged students in different ways on different campuses, if there is indeed any impact.

Aside from the question of impact of Special Services, those disadvantaged students in the colleges surveyed appear to be performing satisfactorily. Forty-seven percent of the poverty groups and 57 percent of the physically handicapped report college grade averages of B- or better (against 56 percent of the non-disadvantaged). Many factors qualify these results: e.g., the institutions used were not representative of all higher education institutions but rather of those with a preponderance of disadvantaged; disadvantaged (or regular) students who never entered college (or who failed or otherwise left shortly after admission) were not represented. Yet, it would seem safe to conclude that given necessary financial resources (or necessary physical facilitation for the physically handicapped), "disadvantagement" does not preclude a reasonable chance to perform satisfactorily in college.

The more subjective evidence gathered through site visits to institutions with Special Services Programs, or from the reports of program directors at the institutions, revealed a number of problems that frequently seem to affect program functioning. These problems, if correctly assessed, underscore the importance of: administrative support (and the integrity of that support); assignment of the necessary control of the program to the project director, including budget management responsibility; freedom from faculty hostility; adequacy of funds for maximizing program services, or more particularly adequate funds for scholarships and grants-in-aid; finding ways to prevent special services from acquiring the lower status of a salvage operation, with resultant stigma for student participants; accommodating students from a variety of racial/ethnic groups in such a way that each group feels that they are treated fairly; reducing staff turnover (attributed to year-to-year funding); coping with the values, social styles, or readiness gulf of some campuses between disadvantaged and modal students; obtaining hard institutional data that might guide the operation of the program or help determine the most effective mix of program elements; and coordinating Special Service elements with regular services offered traditional students. Dedication of staff to the needs of disadvantaged students was seldom if ever perceived to be a problem by the site visitors; but the status of the program director among other faculty and staff of the institution frequently was a central concern--which seemed to be a function of his frequently limited academic credentials and perceived salvage mission.

It is significant, however, that although some programs were obvious failures, their impact on the institution was almost always stated by campus sources in positive terms, even by observers who indicated that they had been initially critical. That positive impact generally involved a postulated change in campus attitude toward the disadvantaged themselves, toward their general acceptance and accommodation by faculty, administration, and other students. The programs seemed to be a powerful force for institutional change in admissions policy, curriculum, faculty and student attitudes, instructional strategies, grading and retention policy, and the like.

IV. INTERPRETATION AND CONCLUSIONS

1. The most reliable indicator of later academic success remains that traditional measure used in the past--previous academic performance. There is no evidence that availability of or participation in support services activities systematically improves performance and satisfaction with college over that which may be expected from past performance.

2. Colleges differ in important ways: cost, grading standards, attrition rates, kinds of programs, nature and social patterns of student bodies, features attractive to students, and so forth. These institutional differences account more surely for differences in disadvantaged student success and satisfaction than do the presence or absence of particular support services or support services in general.

3. In understanding student behavior and attitudes, race effects are more critical than poverty or physical handicap effects, with the implication that any efforts with the disadvantaged need to be particularly sensitive to the racial or ethnic backgrounds of the students served.

4. Without adequate financial aid, poverty stricken students are less likely to enter college, to succeed, or to be satisfied with their college experience. There are important differences or inequities in the degree to which financial aid of various kinds is known, available to, or used by the different racial/ethnic groups.

5. The physically handicapped in college have little or no problems in common with the poor and the ethnic minorities. To provide effectively for their obvious needs, different support of facilitation strategies need to be employed. The combining of physically handicapped and the poor under one program does not seem warranted.

6. With no conclusive or pervasive evidence of impact of Special Services Programs on students, the need for further research, and developmental activity with rigorous evaluation, is still evident--both for more definitive answers about the impact of programs, and the contrivance of better intervention strategies. Better data, on individuals over time, needs to be routinely maintained; harder experimental designs, with better controls, need to be employed.

7. The data suggest that whatever forces are in operation to equalize access to college for the poor in comparison to the nonpoor, they may be working more effectively for the poor white and the poor Blacks, and less effectively for the poor Orientals, Mexican American, Puerto Ricans, Native Americans, and other ethnic minorities.

8. The presence of Special Services Programs and/or disadvantaged students on the campuses seems to be associated with a change in campus attitude toward the disadvantaged, toward their more general acceptance and accommodation by faculty, administrators and other students (although students and staff identified with salvage programs may be viewed negatively).

9. To maintain smoothly functioning programs on the campuses, it is critical to have: honest and demonstrable institutional commitment; a respected and capable program director; respect and involvement of the regular teaching faculty; a critical mass of students. Programs appear to exist more comfortably where the values, ability, and behavior gulf between disadvantaged and modal students is minimal.

10. After a reasonable time, program evaluation and renewal should be based on the success of students performing on a level that equals or exceeds that of their nondisadvantaged peers at that institution. Both internal and external evaluation should be built into contract requirements for renewal. Ongoing evaluation is a *sine qua non* for continuance, given the absence of proof of effectiveness of current efforts.

Reference: Davis, J. A., Burkheimer, G. J., and Borders-Patterson, Anne. *The Impact of Special Services Programs in Higher Education for Disadvantaged Students*. Princeton, N. J.: Educational Testing Service, 1975.

CHAPTER 1

Overview: The Problem and the Congressional Response, the Response from Higher Education, and the Objectives of the Current Inquiry

A. The Problem and the Congressional Response

The years following World War II found in the United States a growing general awareness and concern that our higher education systems, the traditional preparatory grounds for the critical high level manpower needs of the nation, were remarkably elitist in their design, history, and focus. This "elitism" manifested itself not only in the selective practices and curricula of some colleges that have tended to serve as the models that other institutions strive to emulate, but also in subtle forces that invade the very fabric of our society, and that control to a substantial degree who indeed may perceive and/or receive a viable opportunity to engage in education or training to the limits of his true potential.

The barriers to access to higher education take many forms. A principal barrier, increasingly eased by the burgeoning community college system and by state and federal student financial aid provisions, is the financial barrier. Still, continuing education after reaching the age at which one may engage in productive work for remuneration also includes, for the poor, loss of frequently needed income while in school.

Yet open door institutions, and provisions for equalizing the economic feasibility of continuing education beyond high school, are in themselves not enough. Those individuals in our society who have been restrained by economic necessity are also most frequently those who, because of the integral lock-step between level of education and employment opportunity, have floundered in the traditional educational programs of the public schools. That floundering may result from the inability of the traditional system to create instructional strategies that are successful with some students, or from pervasive and self-defeating outlooks and limited aspirations of the nations young poor, colored harshly by the realities they have known.

In the Higher Education Act of 1965, the Congress created two programs that had as their purpose the motivation and attraction of young people "of financial and cultural need" into post-secondary education, and the provision of special preparation that might allow them to cope more effectively with the traditional demands of existing post-secondary educational institutions. One of these programs, "Talent Search," is concerned with (a) identifying young people from grade 7 up who, though poor, may have "an exceptional potential" for post-secondary education; (b) providing information about existing forms of student financial aid; (c) encouraging them to complete their secondary education; and (d) helping them to explore available post-secondary educational and vocational options. The other program, "Upward Bound," is a pre-college preparatory activity providing intensive work with high school students from low-income backgrounds with inadequate scholastic preparation during the summers following the 10th, 11th, and 12th grades, as well as follow-up in ensuing school years. The specific objectives of Upward Bound involve both the generation of motivation to continue in training, and the development of necessary academic skills for continuation.

Both of these federally-supported programs involve intervention with the individual prior to college entrance. That the students involved may still need special assistance to survive in college was recognized by the Higher Education Amendments of 1968 (Title 1, Part A, Section 105, P.L. 90-575), whereby the Congress created a third activity known as the "Special Services Programs," and placed this activity into legislative and functional unity with Talent Search and Upward Bound. Under this legislation, funding was established for comprehensive college programs that would provide for (in the language of the Amendment),

> ...remedial and other special services for students with academic potential (A) who are enrolled or accepted for enrollment at the institution which is the beneficiary of the grant or contract, and (B) who, by reason of deprived educational, cultural, or economic background, or physical handicap, are in need of such services to assist them to initiate, continue, or resume their post-secondary education.

The Amendments further stated that such Special Services may include among other things:

> (A) counseling, tutorial, or other educational services, including special summer programs, to remedy such students' academic deficiencies,
>
> (B) career guidance, placement, or other student personnel services to encourage or facilitate such students' continuance or reentrance in higher education program, or
>
> (C) identification, encouragement, and counseling of any such students with a view to their undertaking a program of graduate or professional education.

As further developed and emphasized in the Guidelines developed by the Division of Student Assistance, USOE, which has served as the administrative authority under the Commissioner of Education, Special Services Programs in post-secondary institutions should attempt to facilitate "disadvantaged" students[1] through an active consideration of the students' total environment, on and off campus, for learning and developing, and to permit them to progress with dignity and with promise of success in their continuing post-secondary study.

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[1] The term "disadvantaged students" is the general label used in the program guidelines. In practice, the guidelines, though echoing the concepts quoted in the legislation, define disadvantage in terms of origin from family within the Federal Poverty Classification, or with physical handicap.

B. The Response from Higher Education

In the first year of the new program, 1970-71, 121 projects were approved and supported with a $10 million appropriation. It was estimated by USOE that some 30,000 disadvantaged students were directly affected.

In the second year of the program, 1971-72, a $15 million appropriation was used to support 190 Special Services projects affecting an estimated 51,500 disadvantaged students. Of the initial 121 projects, 110 were continued in the second year, involving both new freshmen and continuing sophomores. The remaining 80 represented new projects in their first year of operation in 1971-72, and they were directed toward entering freshmen. Some of the students participating in Special Services projects in the first and subsequent years were alumni of Talent Search and Upward Bound, while others met the operational criteria of member of family within the national poverty criteria or were physically handicapped.

In the third year of operation of Special Services, 1972-73, 208 projects were funded at a support level of $14,175,000 involving an estimated 48,700 students. In this year (as the evaluation study reported herein was begun), 100 projects funded in both the first and second year were continued; 74 projects funded for the first time in 1971-72 were continued; and 34 projects were funded for the first time in the 1972-73 school year.[2]

Hence, there has been a modest expansion of the original effort, and by and large, the projects would appear to have enjoyed continuity of acceptance at the institutional level and of support at the federal level.

C. The Objectives of the Current Inquiry

The current inquiry was a response to a formal "Request for Proposal" issued by USOE through the Office of Planning, Budgeting, and Evaluation in the late spring of 1970. This document expressed an interest in an assessment of the broad need for special services for disadvantaged students in institutions of higher education, for the development of an information base for use in future evaluation activities, and for an empirical assessment of the programs to provide program management information that might facilitate the award and monitoring processes within USOE.

Toward these general objectives, a number of specific tasks were outlined. These included assessment of existing programs in terms of numbers and characteristics of students, and types of support provided; assessment of current programs and the specified national priorities, both in terms of program availability and program operation; identification of factors associated with program effectiveness (with effectiveness defined in terms of "beneficial impact on students' educational development and retention in school," academic performance and continuance, and the degree to which programs are perceived by students as "satisfying their academic, financial, and personal needs"); development of an information system and analytical techniques useful to national program management and evaluation; specification of probable consequences of alternate funding levels, with particular attention to "factors in and out of the educational system which affect program activities and over which program directors have little or no influence"; and, finally, assessment of the impact of successful support services programs on the sponsoring institutions themselves.

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[2] Numbers and estimates were provided by the Data Collection and Analysis Branch, USOE, and the Division of Student Assistance, USOE.

In the response to the RFP, a field research team in the Southeastern Office of Educational Testing Service elaborated these objectives into a number of even more specific issues. A first, basic, and critical set of questions emerged from the typical students involved. The target population is not only a minority in many ways in higher education itself, but also a new minority; there is little in the research literature or in institutional experience yet that would answer such questions as what motivated them to enter college, in contrast to the motivation of traditional college applicants; what their instrumental perceptions and aspirations may be; and, what problems they actually experience in maintaining themselves in the college environment. These questions assume added importance and specificity when one considers that the net of the national poverty criteria collects disproportionate numbers of the ethnic minorities--Blacks, Chicanos, Native Americans, Puerto Ricans, Filipinos, etc.--who may differ as a function of ethnicity in their response to the opportunity and actuality of higher education. The inclusion, through the Higher Education Amendments of 1968, of physically handicapped students (poor or not) poses other kinds of student needs and response styles or capabilities.

Beyond the description of differences in relevant needs and behavior of the "disadvantaged" student population or subgroups thereof, is the important question of their response to various kinds of either natural or contrived interventions. If one accepts the frequent argument, for example, that academic achievement motivation is a middle-class phenomenon, what may generate this motivation or serve in its stead for the disadvantaged? Also, given the possibility that ethnic culture components control to some extent the characteristic responses to a given stimulus, are there variations in the most effective interventional strategies for the different subgroups?

A second basic and critical set of questions emerges from the essential strategy of Special Services. The philosophical assumption behind the programs is that the disadvantaged profit from special assistance through such traditional mechanisms as counseling, tutoring, and remedial instruction. What, indeed, are the support strategies, and what forms do they take in different kinds of higher education climates? What strategies appear most effective, and what personal, programmatic, or institutional factors moderate their effectiveness? Are there other strategies or forms of intervention in institutions with genuine commitment to disadvantaged students (as attested by numbers served) operating without federal support for special services and consequently without their restrictive mold? What other provisions for the target students do institutions need to make--and how do special services programs intermesh with other campus programs? And of all the elements, which operate effectively with what kinds of students in what institutional contexts?

The questions raised thus far have particular concern for the impact of the higher educational system, as it is constituted or modified, and the impact of supportive services programs, on the "new" or disadvantaged student. Answers should provide some improved illumination of the student and program characteristics, and of the interaction of relevant individual, programmatic and institutional factors. A third class of question has to do with the consequences of the enrollment of these students and of the support programs themselves, particularly for the host institutions. What is the attitude of other students, faculty, and administrators toward the programs and their students? What changes, if any, may be detected in institutional policies, curriculum, or climate? What features of the programs would be preserved if federal support were reduced or terminated? Is there any evidence that the programs are eroding the elitist practices or otherwise changing the face of higher education in the United States as a whole?

D. Summary

In summary, then: opportunity for higher education has been unequally available, perhaps in part because the system is tuned to those who typically can afford that opportunity. But the numerous barriers for the poor extend beyond capability to pay: they may include deficits in motivation and the traditional kinds of abilities demanded by traditional instructional procedures, and--as the nation's poor include disproportionate numbers of the ethnic minorities--they may be related to the general exclusive prejudices that have pervaded society as a whole, or there may be subcultural attitudes, beliefs, mores, and needs that augur against an effective response of higher education institutions for members of these ethnic subgroups.

In response, the Congress created two precollege programs (Talent Search and Upward Bound) designed to motivate and better prepare students from poor families (or "disadvantaged" students) for higher education. After a few years' operation of these programs, a third program was initiated at the college level, in the apparent belief that the target population continued to need various kinds of support in maintaining and adapting themselves to the college environment. As these "Special Services Programs" entered their second year of operation, the U. S. Office of Education expressed a need to examine the feasibility and effectiveness of the programs, to revise estimates of national need, and to obtain better procedures for monitoring and improving their impact.

In determining how the most effective evaluation of Special Services Programs may be structured at this point in time, attention has been called to developing an understanding of the target population itself, in addition to conducting an inventory of the program elements as they operate in various institutional contexts.

Finally, although some aspects of the evaluation task demand a census or descriptive tally of people and events, and others demand specification of criteria for successful programs, and study of personal (student), institutional, and program element factors, there remains a need to determine what personal, programmatic, and institutional factors are associated with effectiveness of impact of programs on students. This requires, of course, criteria for judging effectiveness of impact. The original Request for Proposal called for demonstration of impact on students involved in the programs in terms of academic success and persistence and in terms of their satisfaction with their college experience. Success, persistence, and satisfaction are likely to be imperfectly related; yet, each represents important program objectives. The pattern of interrelationships with each other and with program elements should be revealing.

The federal interest in evaluation of the Special Services Programs reflects rather clearly concerns for determining levels of national need for support services for "disadvantaged" students, for enhancing in positive ways the impact of the programs through improved award and monitoring procedures, and for maximizing the cost-effectiveness of the programs. Therefore, the question guiding the study reported herein is, most precisely, where and under what conditions have the programs been successful, and how may this impact be strengthened at reasonable cost?

CHAPTER 2

The Literature on the Higher Education of the Disadvantaged: A Summary

A. The Scope of the Literature Review

Disadvantaged students are defined by the guidelines for Special Services Programs as students from families within the National Poverty Classification (Appendix A, p. A-1) or those with physical handicaps that affect their ability to cope with a standard educational environment.

The physically handicapped student, it would appear immediately, is a different proposition from the poor student in many critical ways. It may be suspected at the outset that he is not so frequently from a poverty background nor does he possess the characteristic low standings on traditional admissions credentials that students from low-income families so frequently present. The problems he must surmount to survive in college, and what the college must provide to maintain him, are decidedly unique to his physical disability. The quadriplegic must be able to enter the classroom, library, laboratory, or toilet facilities; the blind must have special means of access to instructional material traditionally presented by visual media. Accordingly, research related to the physically handicapped will be treated--at least initially--quite separately.

In defining a conceptual structure for determining what areas of research may be relevant to problems and issues concerning low-income students in higher education, one must immediately recognize, as stressed in Chapter 1, that the nation's poor include disproportionately large numbers of racial or ethnic minorities--the Black, the Chicano, the Puerto Rican, the American Indian, and perhaps others (Cubans, Filipinos, Orientals, etc.). Each of these groups may have unique problems and needs in maintaining themselves in colleges as a reflection of their cultural background, the fact of different degrees of underrepresentation in college, and the stage of development of their collective movement for equality of access to educational, occupational, and social opportunity. This means that, in a review of research that may illuminate problems and solutions for the target groups of the Higher Education Amendments of 1968, one must be concerned with research on the problems of minorities in college, as well as with problems of the poor or the physically handicapped.

For our purposes, the current American system of higher education is marked by several essential features. Most notable is the variety of abilities it accommodates (Darley, 1962) and the variety of kinds of training it affords, and indeed, the variety of "presses" or emphases in the learning environments (Astin, 1965). Another essential feature is the relatively high proportion of the general college age population now enrolled, a proportion that continues to increase. A third essential feature is the pervasive belief in our society that higher education is a prerequisite for access to higher-level occupational, economic, social, and cultural opportunity. A fourth essential feature is the elitist origin, tradition, and nature of American higher education which persists in spite of inroads made by public and vocational-technical or open-door colleges since World War II. The persistence of this elitism is evidenced by the tendency among the general public or college faculty and administration alike to equate quality of institution with the degree to which it is selective, and by the upward aspiration--and mobility--of higher education institutions in this tradition.

Given these features of the higher educational system, and the concern of federal government with poor/minority prospective students, it is little wonder that the label "disadvantaged" is commonplace both in the language of the Higher Education Amendments, and in the thoughts and objectives of those researchers and educators who have addressed themselves to the accommodation of such students in higher education. College involves financial costs which for the poor represent a financial burden. This places them in a "disadvantaged" position, of course, but it may be hypothesized that their disadvantage extends beyond their financial status, which is remediable by infusion of financial aid. Because the typical college student has come from a different subculture--one more marked for its emphasis on academic achievement and its belief in the reasonableness of attainment of the good life if armed with higher education--the poor student may present important differences in attitudes, values, and aspirations as a function of his low-income background. Perhaps as a function of those abilities required to sustain higher education and the fact that job-level entry screening procedures may rely heavily on criteria of educational attainment or the abilities such attainment reflects, the lower socioeconomic levels contain many individuals with differences (as well as they can be measured by our traditional tests and precollege grading systems) in the capability to maintain themselves and to grow in a system traditionally patronized by and structured for the kinds of students who have gone to college in the past.

Thus, the essential characteristics of the target group of prospective college students, and of the American college and university environment, are relevant to the literature search. Another class of factors of relevance to the presence and behavior of the disadvantaged in college has to do with certain movements within, or characteristics of, contemporary American society that prescribe forces affecting that presence. One such factor is the progressive concern at federal levels, starting with the Supreme Court decision of 1955 on public school desegregation, and extending to recent "War on Poverty" efforts, to move toward a more genuine equality of access to societal benefits, or, at the least, to remove the artificial barriers that have tended to contain individuals within their less desirable traditional spheres of opportunity. Another factor is the evolution of minority group identity and effective movements, the emergence of new vocal leaders whose power within and outside their minority group depends on the forces they use or reflect and that build group solidarity--or power. There can be no question, for example, but that the rallying of Blacks around concepts of Black identity has created a situation in which members of that minority have become a force to be contended with socially, economically, and politically--because of the massing of individuals who identify with one another and who present a common set of priorities.

Thus, at the outset it is believed that the search for useful competent opinion or empirical findings will derive from the unique characteristics of the target student, the essential nature of the educational system they enter, and the new societal forces that may make new aspirations for the adult role seem or be reasonable.

With the strong suspicion that these are some of the critical dimensions of the problem, a search of presumed relevant literature began. What was found has been organized in succeeding sections as:

- o Definitions and Concepts of "Disadvantagement": Theories, Models, and Applications
- o Census of the "Disadvantaged" in Higher Education Institutions: Enrollment Trends and Current Status
- o Barriers to Access to Higher Education for the "Disadvantaged"
- o The "Disadvantaged" in College: What They Experience, and What They Achieve
- o Programs for Facilitating Access to and Success in College of the "Disadvantaged"
- o Conclusions, Implications, and Recommendations for Further Research.

The search for relevant literature began with the initiation of the study. Specialized bibliographic search services, such as use of the ERIC files and the computerized search facilities of the North Carolina Board of Science and Technology were used, as well as were the more conventional abstracts such as those provided by the College Student Personnel Abstracts. The search focused on the ten-year period prior to 1972. In addition, recourse was made to a number of centers of activity known for their collection of relevant articles and studies: these included the office of Dr. Edmond Gordon of the Horace Mann-Lincoln Institute at Teachers College, Columbia University; The Division of Student Assistance and the Office of Planning, Budgeting, and Evaluation of the U. S. Office of Education; the Southwestern Cooperative Educational Laboratory, Inc., in Albuquerque; and the Centro de Estudios Chicanos Publications, in San Diego. Special efforts were made to obtain unpublished institutional studies. Most of these were drawn from the files of the Division of Student Assistance, USOE; others were solicited directly from institutions in the later empirical survey to be reported herein.

B. Definitions and Concepts of "Disadvantagement": Theories, Models, and Applications

In administering special programs for disadvantaged students, the federal government employs principally (as has already been noted) a legalistic kind of application of the "National Poverty Classification." A student from a family within the classification is considered disadvantaged. Because occupation and income are strongly related to educational level attained, a definition of disadvantage based on economic criteria includes those in the lower range of educational achievement as well. Havighurst has noted (1970), "there is no single ethnic group of any size that can be said to be disadvantaged educationally and economically as a whole group [p. 314]." He goes on, however, to estimate that the bottom 15-20% of the population in income and educational achievement contains about 20 million English-speaking Caucasians, 8 million Negroes, 2 million Spanish-Americans, 700,000 Puerto Ricans, and 500,000 American Indians. In terms of comparable ethnic proportions, that would mean 11% of the English-speaking Caucasians, 40% of the Blacks, 33% of the Mexican-Americans, 50% of the Puerto Ricans, and 70% of the American Indians. Thus, significant proportions of at least four major cultural groups whose members are racial or ethnic minorities are caught in the net of the definition of disadvantage.

This section, however, is not concerned with the legalistic or administrative definition of "disadvantaged," but with theories, models, and constructs that purport to explain the failure of the target group or groups to achieve as readily and as well, or to persist in school to the same extent as do the middle or upper class.

Scarcely more than a decade or two ago, this posed no apparent problem of explanation. Those who failed to achieve readily in school were frequently thought to be simply those with learning difficulties caused by lack of scholastic aptitude, motivation to succeed, or financial capability to persist. Achievement motivation proved to be a rationalization, or explanation after the fact, rather than a useful trait--at least there were difficulties in defining it sufficiently to permit the development of measures that could be shown to be related to subsequent achievement. Conventional tests of scholastic aptitude, or a combination of test scores and past performance, have served as predictors of academic success that cannot be significantly improved, as Fishman stated in 1962:

> ...it would hardly seem to be too much of an exaggeration to say that nearly every investigator of higher education has done a study predicting college achievement or adjustment. It also seems that every investigator has done only one such study.
>
> What is the upshot of all this research on college selection and guidance? Unfortunately, it can all be summarized rather briefly. The most usual predictors are high school grades and scores on a standardized measure of scholastic aptitude. The usual criterion is the freshman average. The average multiple correlation obtained when aiming the usual predictors at the usual criterion is approximately .55. The gain in the multiple correlation upon adding a personality test score to one or both of the usual predictors, holding the criterion constant, is usually less than .05 [p. 668-669].

The civil rights movement and related forces seem to have brought into clear national focus a deeper insight into the ability-deficit explanation of failure to enter or to perform satisfactorily in college. Large components of racial and ethnic subgroups of the population fall into difficulties from failure to persist in school. If our society has practiced wholesale discrimination in withholding social, economic, and educational opportunity from these subgroups, forces growing out of that discrimination may be responsible for failures in educational attainment--or indeed, for failures in redressing the wrongs of past discrimination by simple removal of such barriers as the financial (as, at the higher education level, through provision of low-cost educational opportunity or financial aid). Greater efforts by society than these must be made to find effective ways to facilitate the educational treatment of groups that may have suffered, whatever the personal traits of their members, from prejudicial and discriminatory practices of society-at-large. More effective educational treatment, however, demands insights into the cause for relative failure.

In this effort to hypothesize why minority or poverty groups have difficulty in conventional educational programs, there have been, in the last decade, what appear to be two opposing camps. One is exemplified by Jensen (1969) who argues for genetic bases for learning difficulties much as did Shuey (1958) a decade earlier. This argument places the blame for the condition on the individual or his minority subculture. The other camp attributes causality not to the intrinsic characteristics of the minority subculture, but to the constriction of that minority by the majority culture. For example, Amos and Grambs (1968) define the culturally disadvantaged as "those who are the products of a culture that has not provided them with motivations, opportunities, experiences and relationships that will enhance their chances of competing successfully with their fellow citizens in all phases of life."

From either concept, strategies for easement can indeed be formulated. If a discriminatory society is at fault, it can become penitent and redress its sins by giving more of that which has been denied. In the case of assumption of genetic differences, the problem becomes one of alternate instructional strategies that are not lock-step with the usual wholesale approach to instruction. But emerging minority-group spokesmen have been quick to point out that most labels--deprived, disadvantaged, etc.--suggest an inferiority of the individuals or groups so labeled, whether attributing deficit to biological or genetic traits characteristic of members of a racial or ethnic group, or to deficiencies characteristic of the culture of that group. Particularly where discrete or identifiable groups are involved, the attribution of inferiority in such pejorative characterizations reeks of the very essence of prejudice. As Thomas (1970) stated in a paper delivered before the 137th annual convention of the American Association for the Advancement of Science:

> The terms, disadvantaged, high risk, etc. are viewed with disdain by the groups to which the terms have been attached. Besides connoting a diminution of worth, these terms have a way of not

> placing enough emphasis on the fact that it is our society that has produced the high-risk, disadvantaged and deprived students.

Those explanations of failure submitted by the first camp of those who attribute cause to the individual or his subculture are what Williams (1970) describes as the "deficit model which assumes that Black people are deficient when compared to whites in some measurable trait called intelligence, and that this deficiency is due to genetic or cultural factors or both [p. 65]." Williams sees the kind of definition characterizing the other camp (which blames the prejudicial society) as more satisfactory. This he calls the "cultural difference" model, which

> asserts that the differences noted by psychologists in intelligence testing, family and social organizations and the studies of the Black community are not the result of pathology, faulty learning, or genetic inferiority,... [but] are manifestations of a viable and well-delineated culture of the Black American [p. 65].

This point of view is reflected by Clark (1969), who sees learning difficulties of minorities as a function of

> the total pattern of racial prejudice, discrimination, and segregation found in a racist society...[which] blocks the capacity of school personnel to teach minority group children with the same observable efficiency as that given other children [p. 60].

Similar reasoning by Stone (in press), has led to his proposing the term "disequalized" rather than "disadvantaged," toward postulating observable deficits as a function of punitive or discriminatory pressures exerted on the minority individual by the majority rather than as a function of simple inabilities of the individual members of the minority or of minority cultural deficiencies.

For some time, there have been spokesmen who have argued for emphasizing the neutral or positive characteristics of the minority culture, not only to escape the pejorative characterization of labels implying individual or cultural inferiority,nor necessarily to blame the majority culture rather than the minority group member or subculture, but also to direct the search for more effective educational strategies. For example, Riessman (1962) has pointed out the need to emphasize positive characteristics in order to eradicate the negative or paternalistic views prevalent among those who deal with members of the poverty culture (e.g., social workers, teachers, psychologists). He pictures the so-called "culturally deprived" child as a member of an extended, rather than a broken family. Such a child, he then reasons, tends to identify himself more readily as a member of a group than as an individual, and is accustomed to acting aggressively rather than passively. If this is so, Riessman feels that, to be successful, an educational program should provide self-respect and direction rather than indiscriminant love. Kenneth Johnson (1970) has observed:

> To say that a person is culturally deprived is to say that he is at a disadvantage in some system but not necessarily in any system. Thus the nature of the system in which he is disadvantaged must be specified. The system in which the ghetto dweller finds himself at a disadvantage is the economic system.

Johnson's formulation suggests the possibility that the ghetto dweller, for example, may have traits that are adaptive and necessary for survival in the ghetto environment, and that these traits serve to keep him out of or to hamper him in other environments or systems. Application to training in the Job Corps, where money or special privileges rather than a grade of "A" was used as a reward for achievement, suggests that minorities may progress in a conventional educational environment if parts of it are modified enough that the behavior styles, success patterns, and some of the values of the cultural minority can be accommodated and enlisted.

In a comprehensive review of theoretical models of poverty and the poor, Valentine (1969) points to three ideological schools of thought. Model I portrays a "self-perpetuating subsociety with the defective, unhealthy subculture." Model II is that of an "externally oppressed society with an imposed, exploited subculture." Model III is a "heterogeneous subsociety with variable, adaptive subcultures." Valentine contends that the first model is the "chief underpinning for dominant public policy initiatives" and it has already failed. Model II has its basis in the philosophy of the radical left; it is theoretically sound but difficult to implement in the nonutopia we live in. Valentine himself subscribes to Model III, with all of its implications for the formulation of a universal concept of culture. He concludes:

> Each way of life can be seen as a uniquely creative and continually developing synthesis in which human universals and group particularities are inseparable. Similarly, this view will grant a basic human worth and dignity to all subsocieties and to each subculture. This requires a consistent refusal to derogate any subsystem simply because it seems to violate one's own sectional values or to threaten one's own subgroup interests [p. 147].

In a later paper Valentine (1971) goes so far as to reject both the "biological-deficit" model and the "culture-difference" model. The former model, he states, cannot be proven. He feels that the "culture-difference" model is theoretically sound, but needs to be extended. Although still supporting the idea of ethnic difference and diversity, he now proposes that Afro-Americans are "bi-cultural." They simultaneously exhibit behavior of mainstream culture and hold Afro-American traditions. This formulation points up the dangers in trying to work from too stereotyped or exclusive a view of a given minority culture without realizing that some aspects of the white majority culture may have been partially or wholly assimilated.

Yet, in these several formulations, and the controversies that have engulfed them, it is apparent that much more is at work than attempts to explain deficit in educational achievement and/or attainment. First, there is an attempt to find a neutral concept and a label that is nonderogatory to provide a justification for the deficit. Before very long, however--particularly if the concept becomes a part of popular language--it becomes a euphemism for the group so labeled and for whatever stereotypes are involved. As Friedman (1967) said of the term cultural deprivation, "...it was potentially something more--a popular image." A completely uninvolved visitor from another planet could probably find a biological deficit, a cultural deficit, a cultural difference, or a bicultural conflict theory equally worth attention, and conclude that what the progression of terms illustrates best is that the human being resents, resists, and replaces labels for groups he identifies with that for whatever reason have or come to have negative connotations to him or others.

Another important generalization may be drawn from several formulations and their justifications. That is, they may reflect or evoke concern in a dominant culture for its sins of discrimination, thus enlisting political, economic, social, and institutional interest in the cause of redress (i.e., the term "deprived" suggests, for the dominant society, action to provide whatever has been withheld). Yet, the formulations may serve still for those who identify with the group sustaining the deficit as a reminder of that deficit and recognition of it by those outside the group. It is only natural, then, to challenge the formulation.

The evolution of concepts and labels attests something still more important--that is, the search for an explanation of deficit is moving toward positive elements that create a beauty, a reasonable source of pride, and an unanxious identity, both for the group labeled and for those interacting with that group. The situation becomes a political/cultural-interaction process where blame-setting--on the individual, the cultural minority, the majority culture or its institutions (including the schools)--is of limited utility in relieving the deficit unless that blame can be accepted sufficiently by the component blamed to permit an honest and aggressive search for ways to improve the condition.

Thus, the critical question remains: Whatever the origin of restricted academic achievement and attainment, how remove it? If conventional tests of scholastic aptitude only identify those who perform well in conventional educational programs, how modify those programs to capitalize on whatever other traits and qualities the individual may have? How modify the reward system to make it instrumental, and how change the expectancy to yield a higher level of aspiration and persistence? Friedenberg has stated:

> Urgent as the need for a massive increase in support for black and other "disadvantaged" students was and is, it seems grotesque for [the proponents of these groups] to conceive their problem as a matter of test bias.... What is needed to respond more adequately to the needs of "disadvantaged" is not a more thorough and ingenious canvass among them for the qualities society rewards,

but a broader and more adventurous--and more gracious--conception of what constitutes a socially valuable attribute.

That the search for appropriate instructional strategies may indeed produce results not bound by traditional measures of scholastic aptitude is demonstrated in a well-designed and carefully controlled study by Rohwer (1971). He administered a test of paired associates to middle-income Whites and to low-income Blacks. Such a test, he feels, "not only permits but usually elicits mental activity of considerable ingenuity," but also (a) relates to tests of school achievement, (b) duplicates the kind of school learning required of children, and (c) produces reliable measures for children of widely varying background. On this test, which he sees as conceptual in nature, the usual gap between white and Black does not emerge. He concludes:

> The model does have pronounced educational implications.... It implies that any type of learning proceeds best when conditions are such that conceptual activity is elicited in the learner, whether the conceptual activity called for is formal or imaginative... it implies that some students should be presented information for learning in such a way as to permit acquisition by means of imaginative conceptual activity, while for other students the subject matter should be presented so that it can be acquired by means of formal conceptual activity. The model also implies that, for low-SES students, care should be taken to provide ample opportunities for acquiring information and skills missed because of inadequate early environmental experience. Of equal importance, these opportunities should be tailored to the students' relative propensities for formal or imaginative conceptual activity. Simply, the argument is that a given subject matter can be mastered efficiently either by the route of formal or that of imaginative conceptual activity, depending on the propensities of the students being taught; the corollary argument is that the achievement of mastery by means of rote activity is probably inappropriate for all students [p. 204].

Improved educational systems for the disadvantaged must go beyond utilization of new cognitive patterns and problem-solving styles to consider revised reward systems. Havighurst (1970) has recently drawn heavily on the research regarding general reinforcements in learning of young children, and has concluded that disadvantaged subcultures carry their children along the evolutionary path at different rates and in different ways, that there are differences between ethnic subcultures among disadvantaged groups in the reward systems taught their children, and that to be effective in our majority culture a reward system must be based on a strong ego, yielding in turn a sense of personal control and responsibility. From such conclusions, Havighurst is able to postulate a number of strategies for the better instruction of disadvantaged minority groups which include use of a hierarchy of reward levels, knowledge of which are operating in any given class, more liberal use of rewards, helping the child to strengthen his ego as a controller which can be utilized to reward his behavior, and finally, assistance to the parents.

Havighurst's approach is positive. Too frequently, however, the man on the street, or in the admissions office of most higher education institutions, or on the lecture platform still interprets disadvantage as does Egerton (1968):

> 'High Risk' students are those whose lack of money, low standardized test scores, erratic high school records and race/class/cultural characteristics, taken together, place them at a disadvantage in competition with the preponderant mass of students in the colleges they wish to enter. They are students who are seen as long-shot prospects for success, but who demonstrate some indefinable and unmeasurable quality--motivation, creativity, resilience, leadership, personality or whatever--which an admissions office might interpret as a sign of strength offsetting the customary indicators of probable success [p. 7].

The damage of such a view is that deficit is recognized and taken as real, and the only way seen to salvation is for the student to exhibit some majority characteristic associated with "strength" or promise of "success."

The answer probably lies in the emerging laboratory's ability to find alternate instructional strategies powerful enough to break the back of traditional approaches and reward systems and the accumulata of three centuries of elitism in higher education. That there is the possibility of a different elitism-free system is probably well attested by Cole and Bruner (1971), who take issue with the cultural deficit definition, and who provide a data- and theory-based case that, in their minds, casts doubt on the conclusion that a deficit exists in minority group children, and even raises doubts as to whether any nonsuperficial differences exist among different cultural groups. They lean heavily on modern linguists who have reexamined the traditional educational theories, and then they examine some of these theories from the perspective of behavioral research. They conclude, in an argument that should be read in the original form:

> Psychologists concerned with comparative research, and comparisons of social and ethnic group differences in particular, must take seriously the study of the way different groups organize the relation between their hands and minds; without assuming the superiority of one system over another, they must take seriously the dictum that man is a cultural animal. When cultures are in competition for resources, as they are today, the psychologist's task is to analyze the source of cultural differences so that those of the minority, the less powerful group, may quickly acquire the intellectual instruments necessary for success in the dominant culture, should they so choose [p. 875].

The social scientist, together with the educational practitioner, must search for ways in which to improve and equalize educational opportunity to the fullest extent technically possible. The determination of cause of the disadvantaged student's failure to achieve in school at the same rate or failure to persist in school for as long as the nondisadvantaged, may help to formulate new instructional strategies and to ease other conditions in society that hold the disadvantaged back. Without invoking the difficult question of causality, the postulating of associated conditions may also help to change educational and societal conditions that impinge on minorities. Yet, what all of the foregoing considerations attest is that any label that becomes generally popular also has personal and political implications for those people grouped under that rubric. Most of the arguments found in the literature for a concept of cultural deprivation or disadvantage or difference or disequalization or whatever seem to have been invoked, then later attacked, and subsequently floundered, all as a function of political pressures rather than on the basis of empirical research findings that would affirm or refute the factors postulated.

The best use of any formulation of a social science principle may be whether it is useful or not useful, not whether it is true or untrue. What is useful to the practitioner in attempting to improve intervention strategies may be harmful to the minority group member in attempting to improve his own status or self-image, as long as he is confronted, as he must inevitably and eternally be, by the fact that he is a minority in a majority society. What would seem to be needed on the one hand is a persistent research and developmental effort that is concerned with more substantive questions than whether tests are culturally biased (when it may be more accurate to state they reflect a conventional majority-oriented educational system); and, on the other hand, a reasonable recognition of and attention to the very reasonable needs of the identifiable minorities to be labeled or treated in ways that serve to enhance their striving for a reasonable and self-sustaining role in society, and their attainment of that role.

C. Enrollment Trends and Current Status of Disadvantaged Students in Higher Education Institutions

In the previous section, reference has been made to the fact that the nation's poor--and their heavy components of racial and ethnic minorities--fail to achieve as well or to persist as long in educational programs. This should be particularly apparent in any census of the college and university student population, analyzed for race and/or family income. To what extent has any deficit in educational achievement and persistence, and the obvious financial disadvantage, resulted in restriction of numbers of these students in college? And are there trends that reveal any significant changes taking place?

Before turning to these questions, some population bases are needed as a perspective for viewing the distribution of students in higher education institutions. Given the definition of disadvantage used by USOE in administering Special Services Programs, a first concern is: What is the distribution of the general and college populations by income levels? Estimates provided by the Bureau of Census for 1971 are shown in Table 2-1.

The data in Table 2-1 show that while 18.4% of the families in the U. S. in 1971 had incomes below $5,000, only 8.7% of the students in college came from such families. In the $15,000 plus range are found about 25% of the families, but about 38% of the college population is from this income range. Because of the tendency for poorer families to have larger numbers of children than middle- or upper-affluence families, the discrepancies would probably be even greater if family size could be taken into account.

Table 2-2 illustrates the same phenomenon in a different way. For 18- to 24-year-olds in the general population from families with income below $3,000, only about one in seven were in college in October 1971, and about one of every five 18- to 24-year-olds from families in the $3,000 to $4,999 income bracket were in college. For families in the $15,000-plus range, almost 6 of every 10 were in college. Given a median national income of something over $10,000 in that year, it would appear that about half of the 18- to 24-year-olds from such families are in college.

The most recent reliable data on the distribution of the general and college populations by race are provided by a census conducted in the fall of 1970 by the Office of Civil Rights, USOE (USOE, OCR-72-8), and by the 1970 census. Table 2-3 shows the general population by the racial categories available from the 1970 census, and the full-time college population by the same categories in the fall of that year.

The generalizations from the data in Table 2-3 are hampered by the fact that the proportions within a given racial group who are in the 18- to 24-year-old age range do not necessarily agree with the proportions in other groups. The Native Americans, in particular, have a larger proportion of their group in this age range, because of their sharply reduced longevity compared with other racial/ethnic groups. Table 2-4 draws from data provided by the numbers of 18- to 24-year-olds in three racial/ethnic groups, the portion in each instance enrolled as full-time students in college, and the proportion of the base population group that portion represents. Whereas about 23% of the total 18- to 24-year-olds are full-time students in college, only about 15% of the Blacks in this age range, and about 11% of persons of Spanish origin, are full-time students in college.

The general task analysis of the data presented in Tables 2-1 to 2-4 has been most thoroughly attempted by Crossland (1971), although he was forced, for the year 1970, to work with estimates from figures not broken down by race so well as those provided by the 1970 census, Office of Civil Rights and other surveys after 1972. His estimates for 1970 are shown in Table 2-5. These data are comparable to columns 4 and 5 of Table 2-3, except that Table 2-3 counts only full-time college students and Table 2-5 probably reflects all college students, whether full- or part-time, at both the undergraduate and graduate levels.

Comparison with the data provided previously is justified, in this review, because of the prominence and wide dissemination of Crossland's report, and its frequent use in estimating what changes are required to achieve a better balance. Crossland's estimates appear low for the number of Native Americans against those found in the 1970 Office of Civil Rights survey.

Table 2-1

Distribution of the General and College Student Populations, by Income (1971)*

(Numbers in Thousands)

1 Income	2 No. of Families in U. S. of Given Income	3 % of Total	4 No. of College Students in U.S. of Family Income	5 % of Total
0 - 2,999	4,365	8.2	185	3.
3,000 - 4,999	5,462	10.2	353	5.7
5,000 - 9,999	15,869	29.8	1,527	24.6
10,000 - 14,999	14,360	26.9	1,806	29.1
15,000 - +	13,240	24.8	2,340	37.7
Total	53,296	100	6,210	100

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* Source: U. S. Bureau of the Census, Current Population Reports, Series P-20, No. 241, "Social and Economic Characteristics of Students: October 1971." U.S. Government Printing Office, Washington D.C., 1972, p. 9.

Table 2-2

Proportion of 18- to 24-Year Olds in College (1971) from Various Family Income Levels*
(Numbers in Thousands)

1	2	3	4
Family Income	Number 18- to 24-Year-Olds in Population **	Number 18- to 24-Year-Olds in College***	Proportion of 18- to 24-Year-Olds in College
0 - 3,000	1,371	206	15.0
3,000 - 4,999	2,017	424	21.0
5,000 - 7,999	4,076	1,137	27.9
8,000 - 9,999	2,951	1,000	33.9
10,000 - 14,999	7,460	3,133	42.0
15,000 +	6,780	3,919	57.8

---

* Source: U. S. Bureau of the Census, Current Population Reports, Series P-20, No. 241, "Social and Economic Characteristics of Students: October 1971." U. S. Government Printing Office, Washington, D.C., 1972, p. 8.

**Figures for 18- to 24-year olds in each income group are approximate. Available analyses are for 16- to 21-year-olds and 22- to 24-year-olds. The figure used here was derived by adding 66% of the 16- to 21-year-olds figure to the actual 22- to 24-year-olds figure.

*** Figures in column 3 derived by applying proportions in column 4 to figures in column 2.

Table 2-3

The 1970 General and Full-Time College Population by Racial/Ethnic Group*

(Numbers in Thousands)

Race	General Population	Percent of Total Population	College Population	Percent of Total College Population
American Indian	793	.4	28.5	0.5
Negro	22,580	11.1	344.8	6.9
Oriental	(N.A. Included in All Others)		50.7	1.0
Spanish Surname	9,105	4.5	102.8	2.1
All Others	170,734	84.0	4,439.5	89.4
Total	203,212	100.0	4,965.8	100.0

---

* Source of data: for columns 2 and 3, U. S. Bureau of the Census, Census of Population: 1970, "General Population Characteristics," Final Report, PC (1) - B1 U. S. Summary, U. S. Government Printing Office, Washington, D.C., 1972. Table 48; for columns 4 and 5, Racial and Ethnic Enrollment Data from Institutions of Higher Education, Fall 1970 (OCR-72-8) Washington, D.C., Government Printing Office, undated.

Table 2-4

Numbers of the 18- to 24-Year-Olds in the General

and Full-Time College Population, by Race: Fall, 1972*
(Numbers in Thousands)

Race	General Population	Full-Time College Population	Proportion of Age-Group in College
Black	2,986	436	14.6
Spanish Origin	1,338	143	10.7
All Others	21,315	4,834	22.7
Total	24,579	5,359	21.8

---

* Source: U. S. Bureau of the Census, Current Population Reports, Series P-20, No. 247, "School Enrollment in the U.S.: 1972," U. S. Government Printing Office, Washington, D.C., 1972, p. 3.

Table 2-5

Estimated Composition of the 1970 Higher Education Enrollment by Racial/Ethnic Origin*
(Numbers in Thousands)

Race	Number	Percent of Total
Black	470	5.8
Mexican-Americans	50	0.6
Puerto Ricans	20	0.3
Native Americans	4	0.1
All Others	7,506	93.2
Total	8,050	100.0

---

* Source: Crossland (1971), p. 13. Although not stated explicitly in the description of the Table, estimates probably reflect numbers of full- and part-time students at all levels (undergraduate and graduate).

Crossland's estimate of the number of Native Americans in the general population, 700,000 (p. 10), also appears low against the actual census count in 1970 (793,000) and it is not clear how he estimated Native American enrollment in college. The writers are aware, however, of reports that some college students sometimes were felt to respond to the OCR census by identifying themselves as "Indians," as a lark, when indeed they were not of Native American ancestry. Thus, the OCR data may be inflated in this regard. Also, the exclusion of part-time students in the OCR data, against Crossland's estimates, suggests that the minorities do not appear as frequently as part-time students as do whites. Yet, putting the two together in 1970, between .1 and .5% of the college population are Native Americans, between 5.8 and 6.9% are Black, and between .9 (Mexican-Americans and Puerto Ricans) and 2.1% (Spanish surname) are of Spanish-speaking origin.

These figures only attest that, within the college population, the several racial-ethnic minorities are indeed minorities. The more critical question is, of course, how much are income and racial factors associated with diminution of numbers of those groups in college, in comparison with the rest of the population? Crossland (1971, p. 15) based his estimates of minority underrepresentation not on the proportion of students in college as a function of numbers in the age group, but as a function of numbers in the total population. He estimated 2.0% of Black Americans are enrolled, 1.0% of Mexican-Americans, 1.3% of Puerto Ricans, 0.6% of American Indians, against 4.3% of all others. To increase the minority groups to parity, he states:

> the estimated black enrollment in 1970 would have to be increased by 543,000 (from 470,000 to 1,013,000)--an increase of 116 percent
>
> the estimated Mexican-American enrollment in 1970 would have to be increased by 165,000 (from 50,000 to 215,000)--an increase of 330 percent
>
> the estimated Puerto Rican enrollment in 1970 would have to be increased by 45,000 (from 20,000 to 65,000)--an increase of 225 percent
>
> the estimated American Indian enrollment in 1970 would have to be increased by 26,000 (from 4,000 to 30,000)--an increase of 650 percent [p. 16].

Working from the perhaps more accurate bases of the 1972 summary report of the Bureau of the Census, (i.e., from the data provided in Table 2-4), the comparable estimates (developed by applying the 22.7% of the 18- to 24-year-old white population in college to the numbers of the 18- to 24-year-olds in the minority groups) would be:

-- the estimated Black enrollment in 1972 would have to be increased by 244,000 (from 436,000 to 680,000), an increase of 56%

-- the estimated Spanish-origin enrollment would have to be increased by 177,000 (from 143,000 to 320,000), an increase of 124%

A similar projection for Native Americans is hampered by not having readily available an estimate or census of the number of the total Indian population of 793,000 in 1970 (Table 2-3) who were in the 18-24 age group; and, the OCR estimate of 28,500 Native Americans in college in 1970 (Table 2-3) is more than seven times higher than the Crossland estimate. The number of Native Americans in college needs to be verified, and then examined as a proportion of the number within the college-age group, to determine if under these assumptions parity does not exist.

Thus, though the two sets of projections for a racial parity are based on different assumptions, the projections using the more recent census and OCR data are much more conservative. It is nevertheless clear that racial parity did not exist for Blacks or individuals of Spanish origin in 1970, and that the greater inequity existed for those of Spanish origin.

A flaw in the Crossland projections and in the foregoing reformulation--given the definition of disadvantage--is that they are concerned only with the racial-ethnic minorities. The poor white is also "disadvantaged." Similar estimates of what increases would be needed and proper for poor whites cannot be readily drawn on the same assumptions, for the number at which parity is reached is defined as a proportion of minorities in college that is equivalent to the proportion of college-going whites among all whites.

The argument for racial parity is not relevant for poor whites; yet, social class bias and any impacts of poor environment can be postulated as affecting this group in some of the same ways as racial minorities are affected. Also, one is faced now with the inevitability that an even distribution of proportions of the various categories of family income in college is not a realistic objective.

The potential weight of the issue, however, is shown by census data on income cross-tabulated by race. Of the total population from families at income levels below $3,000, there are 4,424,000 families representing 12,612,000 individuals. This is made up of about 3,287,000 white and 1,136,000 nonwhite families, or about 9,085,000 whites and 3,527,000 nonwhites. In short, 72% of the nation's poor are white, and 28% are nonwhite (U. S. Bureau of the Census, 1972). The fact that the number of poor whites caught in this extreme poverty net is almost three times the number of all others indicates a considerable pool of nonminorities who also have limitations placed on their upward mobility by the fact that fewer can afford higher education.

Of the total population of 18- to 24-year-olds from families below an income of $3,000, 206,000 or 15% are in college (Table 2-2). To bring this group to college at the same rate as students in the modal income category

($10,000 - $14,999, where 42% of 18- to 24-year-olds are in college) would involve finding ways to move an additional 138,000 poor whites and 48,000 poor nonwhites into institutions of higher education.

Before looking at enrollment trends over time, an even more conservative estimate of what would be needed to achieve parity by racial group should be noted. Berls (unpublished, undated, working paper), working with data on white and nonwhite 18-year-olds from a report of the U. S. Department of Labor (1969), found as follows: in 1963, of 354,000 18-year-old nonwhites, 126,000 or 36% graduated from high school and 48,000 or 38% of the high school graduates entered college. For whites in the same year, of 2,478,000 18-year-olds 1,615,000 or 65% were high school graduates, and 736,000 or 46% of the high school graduates entered college. By 1968, however, there were 303,000 nonwhite high school graduates and 140,000 nonwhite college entrants--gains of 140 and 191 percent. He goes on to state:

> If nonwhites had graduated from high school in 1968 at the same rate as whites, then there would have to have been about 59,000 more nonwhite high school graduates in that year. An increase of 59,000 is not beyond the realm of immediate possibility when we consider that nonwhite high school graduates increased about 45,000 in 1968 over 1967, and 49,000 in 1967 over 1966--a growth of 94,000 in just two years. So if present trends continue, nonwhites soon ought to begin to graduate from high school in numbers approximating the white rate of high school completion. The additional 59,000 nonwhite high school graduates needed to attain parity with whites in rate of high school completion would, therefore, have provided a nonwhite high school completion rate the same as the white rate of 75.6 percent. (The latter figure is derived by multiplying the white rate for entrance to high school of 97 percent by the 78 percent completion rate which yields an adjusted high school graduation rate of 75.6 percent.) When the "gap" of 59,000 is added to the 303,000 nonwhite high school graduates of 1968, this would have increased the number of nonwhite high school graduates to 362,000, which is 75.57 percent of the total 479,000 eighteen-year-old nonwhites in 1968.
>
> For parity in college entrance, about 32,000 more nonwhite entrants to college were needed in 1968 if nonwhites were to have begun college in the same proportion as whites. As with the high school graduates, there are good chances for achieving this rate when we observe that nonwhite entrants to college increased by 32,000 in 1968 over 1967. Thus we probably continue to expect large gains in the nonwhite rate of high school graduation and college entrance since relatively small numbers are needed to make large percentage increases. The necessary increase of 32,000 more nonwhite college entrants would, if attained, result in the same proportion of nonwhites entering college as whites did in 1968--slightly less than 57 percent of the graduates of the high school class of 1968. Thirty-two thousand additional nonwhite entrants to college added to the 140,000 who entered in 1968 sums to 172,000 which is 56.7 percent of the 303,000 nonwhite high school graduates in 1968.

Taking an increase of 32,000 per year, and assuming progressive attrition rates of 20% in the second year, 30% in the third, and 10% in the fourth would yield an increased undergraduate enrollment four years later as follows:

entering freshmen	32,000
entering sophomores	25,600
entering juniors	17,920
entering seniors	16,128

or a total increase of about 92,000 nonwhite students.

Not much will be provided from the literature as to the distributions of minority students geographically or by institutional type: better estimates are provided in the report of other activities within the current project appearing in Chapter 3 of this report (for detailed report, see separate ETS project report, PR-73-16, Burkheimer & Davis, 1973).

While institutions of higher education now enroll over 500,000 college age youth from the racial and ethnic minorities, many have obviously been unwilling to recruit high school students with academic, financial and, often, social deficiencies, and the result is a very uneven distribution among institutions of various kinds. Egerton's (1968) survey of high risk students in 215 predominantly white four-year colleges was somewhat dismal in outlook. He found that private institutions were more likely to provide special programs and services for the disadvantaged than were public institutions. "Sixty percent of the responding public institutions said they have no high risk programs of any sort, while two-thirds of the private ones reported some involvement [p. 13]." This situation existed, despite the apparent willingness of public institutions in the past to relax admissions standards for athletes and veterans. He also concluded that most high-risk programs were established because of the concern of single individuals rather than as a result of total institutional commitment or foundation support. Unfortunately, communications between those institutions developing successful programs and those encountering problems were inadequate, and Egerton reports that many efforts were consequently abandoned in midstream.

Egerton (1969) reached the following conclusions about assessing the number of Black Americans in public universities:

- The 1967 canvass conducted by the U. S. Office of Civil Rights was the most accurate survey to that date. However, many state universities kept no records of students by race, and relied on estimates or head counts for statistics.

- Almost half of full-time Black students were freshmen. There were indications that Blacks were better represented in part-time statistics.

- Just under 2% of all full-time undergraduates in the state and land-grant universities were Black Americans.

- Only two of the universities surveyed had a full-time enrollment of Black students in excess of 5%.

- 350,000 Black Americans were enrolled in higher education in 1969; this contrasts with the Census Bureau figure of 492,000 (4.7% vs. 6.6%).

Bayer and Boruch (1969a; 1969b) surveyed 83,000 students in four-year institutions, using data collected by the American Council on Education in 1966 and 1967. Their conclusions are remarkably similar to those of Egerton (1969):

- The proportion of Black students entering colleges had changed upward but only slightly in the preceding few years.

- Fifty percent of the colleges in the U. S. had less than 2% Black students in their freshman enrollments.

- More than 75% had an enrollment of Black students which was 5% or less of the entering class.

- Special recruitment and admissions programs seemed to have had little impact.

In a sample of minority recruitment policies in 129 four-year Midwestern colleges, support for Egerton's (1968) findings are reported by Willingham (1970a) who concluded that, although three out of five senior institutions were actively recruiting minority students, private liberal arts colleges were more likely to set up special programs to try to retain these students. In the colleges surveyed, seven out of ten minority students returned after their freshman year. (This, incidentally, corresponds roughly to the retention rate for all freshmen.) Although few minority students were on predominantly white campuses, Willingham optimistically noted that associated institutional change in admissions policies, grading, and academic reinforcement programs is beginning to occur.

In assessing changing patterns of accessibility to colleges and universities for all students, Ferrin (1971) compared Willingham's (1970a) data with comparable 1958 statistics. His major findings were:

- The proportion of freshmen in public two-year colleges doubled from 20% to 40% in the decade between 1958 and 1968.

- Low-cost but moderately selective colleges doubled in number during this period.

- Twelve percent more young people of college age lived within commuting distance of free-access colleges in 1968 than in 1958.

- Loss of students through increased selectivity and urbanization counterbalanced the 18% increase of Puerto Ricans and Mexican Americans.

Crossland (1971) has provided estimates of a dramatic shift in Black college student enrollment. He noted that in 1970, about two-thirds of all Black students were enrolled in other than traditionally Black institutions while more than half were enrolled in Black colleges in 1964. This may be accounted for in large part both by the receptivity and popularity for Blacks of the public two-year colleges, and the more aggressive minority recruiting programs. Thomas (1970) states that "the attendance rates for Black students would be shockingly low [p. 4]" if the community college statistics weren't taken into account. Unfortunately, according to Thomas,

> the overwhelming majority of two-year institutions neither develop the commitment, establish the same priorities nor utilize the same precision and creativity in developing the programs and curricula for the educationally disadvantaged student as they do for the able student. This student is one of the academically overlooked--or perhaps ignored [p. 14].

The writers have had an opportunity to study parts of a forthcoming survey by E. W. Gordon (1971) of special programs for disadvantaged students in American institutions of higher education. This new survey will update his earlier study of compensatory programs (E. W. Gordon, 1970), and will bring some qualitative criteria to bear on this kind of activity. A most serious omen for the future education of disadvantaged youth is pointed out by Gordon's conclusion that "today some schools are more comfortably resolving to take fewer risks and to admit those who seem more assured of success [1971, Chapter X, p.6]." Although some schools are "continuing to struggle with the problem of the seriously disadvantaged student," he notes that "the burden is shifting to public colleges." This change, he seems to feel, reflects the "muting" of funding from governmental sources, the shift of funds from programs to individual students, and a general regression of institutions back to conventional ways of dealing with students.

Moving from the numbers and distribution of minority or poverty students to enrollment trends over the years, accurate information is, regrettably, not available except for Blacks. Several key documents were found that do provide careful summaries. The first are several unpublished "reports" by Jaffe and Adams (1971a, b, c) of the Bureau of Applied Social Research, Columbia University. A second is an unpublished working paper by Berls (undated) of the Office of Planning, Budgeting, and Evaluation. Another is a report by Jacobson (1971).

These reports, reflecting almost exhaustive analysis from a number of Census Bureau, Labor Department, and National Center for Educational Statistics (USOE) documents, in addition to other special surveys by such organizations as the American Council on Education, seem to show, at first glance, a dramatic escalation in the number of Blacks enrolled in colleges and universities over recent years. Berls (unpublished) reports, for example, a doubling in the numbers of Blacks (or, more precisely in this paper, nonwhites) enrolled in higher education in the six year span from 1964 to 1970.

These reports suggest a number of relevant observations that should be summarized here. First the proportion of Blacks in the total population is increasing slowly, with the 11% in 1970 projected to rise to about 14.5% by 1990.

Moreover, Berls (unpublished) noted unequal trends for white and nonwhite grammar school graduates who enter and graduate from high school. In 1900, about 51% of the whites, as opposed to about 54% of the nonwhites, who completed grammar school entered high school. By 1957, 94% of the whites and 88% of the nonwhites who completed grammar school entered high school, with the upward progression relatively even and constant over the six decades. The minor discrepancy noted between proportions of white and nonwhite becomes a major discrepancy when one examines the proportions of entering high school students who graduate: in 1900, 64% of the entering whites graduated, against about 58% of the entering nonwhites; in 1957, 80% of the entering whites and 54% of the nonwhites graduated. These data show rather clearly that the point of fall-out for nonwhites has increasingly become within the high school period, though the number of nonwhite high school graduates as a function of the number of nonwhites in the population remained very small until recent decades.

The numbers who enter college depend, of course, on the numbers of available high school graduates. In this connection, Berls (unpublished) reports that there have been no sharp fluctuations by race since 1900, with about half of the white and nonwhite male high school graduates, and about 40% of the white and nonwhite female high school graduates, entering college. There has also been a remarkable stability in the proportion of students entering and graduating from college over the first half of the century: in 1950, about 41% of white and 43% of nonwhite females entering college graduated, against 40% and 33%, respectively, in 1900. For the males, the 1950 proportions were 58% white and 46% nonwhite, and the 1900 proportions were 47% and 46%, respectively. Berls concludes:

> The long-term stability of the rates of college entrance and graduation for both races and sexes indicates that the growing numbers of college entrants and graduates have resulted primarily from the increasing proportions of high school graduates, and not from ever larger proportions of high school graduates beginning college.

Further intensive analyses of recent trends in high school and college attendance for nonwhites by Berls (unpublished), working principally from the Jaffe and Adams (1970, 1971a) data, found that although the white/nonwhite difference (as proportions of the 18-year-old population) in high school completion rate gradually widened from 1950 to 1962, it began narrowing in 1963:

> ...while nonwhites were completing high school in 1963 at only slightly more than half the white rate, by 1968 the gap had narrowed sharply, so that slightly more than 6 of 10 nonwhites

> (as a percentage of 18-year-old nonwhites) were finishing high school compared to about 7.6 in 10 of whites. Nonwhites were graduating from high school in 1968 at about the white rate for 1963.

He concludes that the gap is likely to continue to narrow. For comparable data on college entrance, Berls (unpublished) states:

> Nonwhites doubled in college entrance and somewhat more than doubled in high school graduation over the period 1935 to 1962.... For [the six years since 1962], 1963-1968, whites increased their high school completion and college entrance rates 31 percent and 77 percent respectively. Nonwhite rates grew much more rapidly: 140 percent for high school graduation and almost tripled (191 percent) for college entrance. Whereas it took from 1935 to 1962 for nonwhites to double their college rate, and somewhat more than double their high school completion rate, nonwhites more than doubled their high school completion and almost tripled their rate of entrance to college in only 6 rather than 27 years. The white rate of growth for these two thresholds is slowing down.

With regard to the recent trends in numbers of students in college, changes over the six year period from 1963 to 1968 again show a much more rapid growth rate for nonwhites. Berls (unpublished) reports:

> The total number of nonwhites in college (age 16-24) slightly less than doubled from 1963 to 1968 (93.6 percent), whereas the whites increased at a substantially lower rate--52.5 percent--but from a much bigger base, of course. The women of both races increased in college at a faster rate than the men. Of perhaps the greatest importance, however, is that while nonwhites in college comprised only 11.6 percent of the 16- to 24-year-old cohort of high school graduates in 1963, nonwhites in college made up 28.4 percent of this same age cohort in 1969--more than doubling in the period 1963-1968. The whites grew from 22.4 percent of the age cohort in college to 35.5 percent. In 1963 the proportion of nonwhites in college was slightly more than half of the white proportion, but by 1968 the proportion of nonwhites in college had increased to 80 percent of the white proportion for the 16- to 24-year-age group of high school graduates.

Thus, more critical inequities between white and nonwhite in enrollment in and graduation from college seem to result, as noted, not from failure of high school graduates to enter and complete college, but from the failure of nonwhites to complete high school. Also, the discrepancies in college attendance are real, but have been narrowing since 1963. As the majority of nonwhites are Black, and as Black enrollment in college has probably been remarkably accelerated by the availability of traditionally Black colleges, it is unsafe to generalize from these trends to the other minorities.

D. Barriers to Access to Higher Education for the Disadvantaged

The underrepresentation of disadvantaged, as defined by low income or by membership in a minority racial or ethnic group, has prompted much speculation and some substantial research in barriers to access to higher education opportunity. Legal barriers, in existence for so long, have been effectively removed; in fact, the tenor of compliance requests made on many colleges and universities in the last several years by the Office of Civil Rights, USOE, may have created a kind of legal advocacy situation. The new breed of community colleges, burgeoning and ubiquitous, seems to be relatively effective (Willingham, 1970a,c) in removing barriers of cost and geographic accessibility.

Yet, as Crossland (1971), Davis and Borders-Patterson (1973), Egerton (1969), and many others have pointed out, and as the data in the previous section attest, there is (1) underrepresentation of disadvantaged students in American higher education institutions; and, (2) the distribution of disadvantaged students is remarkably uneven among institutions of various kinds, with "traditional enrollment" for a given institution substantially impervious to change. Particularly when one considers that the status and economic value of degrees from some institutions are higher than others, barriers of substantial significance do indeed persist.

Crossland (1971) categorizes the barriers as of six different types: (1) the test barrier; (2) the barrier of poor preparation; (3) the money barrier; (4) the distance barrier; (5) the motivation barrier; and (6) the racial barrier. Other barriers that may deserve separate consideration are those posed by: (7) the elitism barrier, or the barriers that are suggested by the reluctance or inability of some institutions to adjust to new kinds of students, or by differences in recruitment--not only which student is overtly and actively sought, but also, more subtly, which student receives sufficient information about opportunities and which of those opportunities is made to seem a safe vehicle for his aspirations; and, (8) the self-concept barrier, which may be defined as the sum-total of all those forces that might lead a potential student, long bombarded by prevailing discriminatory attitudes, to view aspiring for higher education as unrealistic.

1. The Test Barrier:

The test barrier has received perhaps the widest popular attention. It is well known that the disadvantaged score low on standard admissions tests (Kendrick, 1967; Crossland, 1971), and that those colleges popularly and traditionally seen as of "high quality" are selective and require admissions tests. That this barrier may be breaking down was shown by Davis and Kerner (1971a, 1971b). In reviewing data from a number of public universities in a southern state, they found a significantly lower, but wide, range of test scores tolerated for Black applicants admitted to the public universities than for admitted whites, but a narrow and much higher range of high school averages for admitted Blacks than for admitted whites. No evidence could be found that any admissions office rejected any Black because of low test scores; but there was evidence that, as a compensatory feature, admissions officers insisted on superlative high school performance.

Nevertheless a variety of unpublished data (confidential institutional reports of SAT means for admitted black freshmen) available to the authors, as well as the recruiting literature, show that many of the "old-line" highly selective institutions continue to focus their search for Blacks or other minorities with the rare high test scores, or, after an unsatisfactory experience such as bitter protest, may revert to this practice. Goldsmith and Joseph (1969) state that, in reviewing an experience that Brandeis University found painful in many ways, "...these (disadvantaged) students come to us lacking many of the skills and the *intellectual* background that we have come to rely upon with the type of student with whom we are more accustomed [p. 86]." (Italics not in original.) In an evaluation of educational opportunity programs in California's open access system, Kitano and Miller (1970) state:

> One question which may be raised relates to the 'type of student' that should be recruited. The programs now in existence show a tendency to limit themselves to the cream of the minority student population, i.e., those who are very academically able (i.e., high grade point) yet cannot afford the cost [p. ix].

And finally, the prestigious Carnegie Commission on Higher Education (1970) has recommended that: "Each state [should] plan to provide universal access to its total system, but not necessarily to each of its institutions, as [the institutions] vary greatly in their nature and purposes [p. 13]."

This seems reasonable, given what is generally known about the hierarchy of institutions, the relation of admissions tests to grades, and the need to have some institutions of distinction. But so long as a hierarchical system is preserved--including institutions of distinction that depend upon stringent admissions, and given the lower ranges of academic ability on conventional tests found among disadvantaged--these institutions will be closed to many who would desire to have access to them and closed to emerging groups that need to develop their own high level leadership.

2. The Poor-Preparation Barrier:

The barrier of poor preparation is, to some extent, related to the barrier that admissions tests threaten. Many colleges have an understandable reluctance to provide training in areas and skills which they feel should have been learned in high school. This reflects concern both for the effective utilization of faculty and plant resources, and for the stigma against such activity that the elitist forces in the system mandate. Still another argument is that remedial work is more noted for its failures than its successes (Roueche, 1968).

The two major college admissions testing organizations (the College Entrance Examination Board, and the American College Testing Program) have increasingly been the target of attack as organizations whose tests perpetuate the elitist system, or, who, by their mission, exercise controls over who gets into college and thus, the better jobs. Both have initiated a variety of activities to explore and elaborate on barriers to access in general, and indeed to point to ways in which they may be eased. Each has sponsored recent publication of a collection of excellent papers (College Entrance Board, 1971b; Rever, 1971). The College Board established, in effect, an access research office that has produced notably Willingham's (1970c) widely used national survey; Ferrin's (1971) review of changes in free access to college over the 1958-68 decade; and Willingham's (1970a) survey of midwestern colleges. These reports, while not ignoring the preparation barrier, do not present either a vigorous defense or refutation of it, and tend to focus on other barriers. What, indeed, is the extent of the preparation barrier?

Crossland (1971, p. 62-63) points to the facts that minority students (1) fail more frequently to graduate from high school, (2) are more frequently counselled into nonacademic high school programs, (3) more frequently come from schools with faulty facilities, and cultural resources below the national average, and (4) usually attend segregated schools where they can have no experience competing with majority students. All of these "preparation factors" are essentially environmental rather than personal in nature.

A popular approach to assessing quality of preparation at the school or college level is to make use of standardized achievement tests. Such tests were used in the Equality of Educational Opportunity Survey (Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, & York, 1966).

The Equality of Educational Opportunity Survey provides a rich variety of data that deserve careful study. For the purposes here of documenting the preparation deficit as determined by standardized tests, may it suffice to say that Coleman et al. (1966) found 12th grade Blacks, Mexican-Americans, Puerto Ricans, and Native Americans from 2.9 to 4.1 grade levels behind the average white in the metropolitan Northeast in reading comprehension, and from 3.9 to 5.7 grade levels behind the same comparison group in mathematics achievement. Although there are regional differences in the test criterion employed, regional deficits for whites were found to vary at grade 12 from .3 to 1.0 grade levels in reading comprehension and from .1 to 1.4 grade levels in mathematics achievement.

That these achievement differences are a function of the same source of variance encompassed by traditional tests of scholastic aptitude is indicated from the Coleman et al. data by similar deficits for the minorities on verbal ability tests, and by the well-known relationship, or common variance, between ability and achievement tests. Those convinced of cultural bias in ability tests can argue on these grounds for similar biases in achievement tests. Nevertheless, to the extent that whatever the tests measure reflects important tool subjects that affect the ease with which college tasks can be handled, the preparation barrier is undeniable.

3. The Financial Barrier:

For the very poor, costs of attending college may be divided among three types, each very real to him: (1) direct costs, or the actual bills that accrue for tuition and fees; (2) indirect costs, or those other expenses he finds he must meet as a consequence of college attendance--food where served, books and transportation as required, etc.; and (3) "foregone" costs, or the income--frequently desparately needed by his family--that he gives up by not entering full-time gainful employment. In recognition of all these elements in the financial barrier, Gordon (unpublished, 1971) states:

> It is clear, however, that the question of financial resource support for students and programs is one of the most critical problems. If we do not have massive funds available for higher education and the tangential costs of income substitution for the families involved, we simply cannot talk seriously about higher education for large numbers of low-income young people [p. 25].

What, then, is the extent of the "massive" funds required?

A number of reports have concerned themselves principally with the needs of Blacks. In an attempt to gauge the comparative financial need of Black and white college students, Bayer and Boruch (1969a) made the following observations:

- more than 60% of Black students in Black colleges come from homes with less than $6,000 annual income.
- almost 50% of Black students in white colleges come from homes with less than $6,000 annual income. This compares with 13% of white students in white colleges.
- 25% of white students are from families with more than $15,000 annual income. This figure compares with 8% of Black students in predominantly white colleges and 6% of Black students in predominantly Black colleges.

Today, the median age of Blacks in the general population is 22 (Crossland, 1971), while the median age of whites is 28. More than half the Blacks below the poverty level are younger than 18. This may mean that the next decade will see an even greater number of Black students applying for admission, and often, financial support. Doermann (1970) has provided estimates of how Black versus white 1969-70 high school graduates would be distributed in terms of income. For the total population of male high school graduates, about 17.5% come from families with income less than $4,600; for Black male high school graduates, 39% fall in this income bracket. Of all males in college, Doermann estimates that less than 9% come from families with incomes below $4,600 (in 1971, as data presented in Table 2-2 show, a little less than 7% of all college students came from families with income below $4,999).

The complexity of problems for the low-income Black is well documented by McClellan (1970). In addition to difficulties already noted, these problems include difficulties in completing forms needed to apply for aid; lack of parental interest; marginal, seasonal employment of many low income families; the absence in aid and scholarship requirements of four-year guarantees; and the odiousness of loans when later income expectancies are rooted in the reality of a hostile society. Branson (1970) translates the numbers of Blacks of low income status, and the 250,000 Black student deficit to reach a 10% representation goal, into a national need for one half billion dollars a year, plus an additional billion a year to keep those Blacks in college who now drop out because of financial pressures.

The experience of Antioch College (Graham, 1967) is further illustrative of some of the problems one can expect:

> The use of the College Scholarship Service forms is complicated by the fact that a number of the students do not maintain any relationship with their families. There is a wide range of practice in the degree to which parents have participated financially. Parents of 21 students were expected to contribute less than $100; 30 did. Of the 13 who were expected to contribute between $200 and $500, 8 actually did, and the 3 who were expected to contribute $700 - $900 contributed nothing [p. 24].

The necessity for providing enough financial aid to each student and the need for support throughout their stay in college, even when grades are yet unsatisfactory, are essential for the retention of the disadvantaged in higher education. The recent study conducted by the Cartter Commission on Student Financial Needs (Cartter, 1971) found that this support is rarely achieved. The Commission reached the following conclusions:

- o In public institutions, the average effect of applying for $1,000 in aid was to reduce probability of admission by 11%.
- o The students most likely to be excluded from higher education by insufficient financial aid are those with the highest need.
- o Financial aid is often used competitively to entice the best students, rather than the most needy applicants.
- o Colleges grant disproportionate aid packages to students with higher measured academic ability. (This practice is presumably based on the knowledge that these individuals will be more likely to repay loans shortly after graduation.)
- o Institutions have modified the College Scholarship Service need analysis in 44% of the cases.

- For Blacks, the evidence indicated that greater financial need had a significantly negative effect on the probability of admission in every case.

Finally, in cataloguing the complexity of responsibilities faced by disadvantaged students, the Commission notes that:

> Youth from low-income families, however, do have special problems. Low-income groups are most commonly from families where foregone income would be severely missed; where community environment is less conducive to college attendance; and where unanticipated expenses such as legal aid, illness or death, evictions, and credit foreclosures can have a devastating effect on the student who shares in family responsibility [p. 48].

As a needed note of caution, however, for a national sample, Jaffe and Adams (1971a, p. 11-13) found that although there was the expected relationship between income and college entrance, the type of high school curriculum and academic self-image in high school had much stronger relationships to college attendance than did income. Also, they found no relationship between family income and type of college entered. Given the relative scarcity of aid against the enormity of financial need, this may mean that at present those who are poor and who aspire strongly for college find one way or another to attend. An important question unanswered by any research known to the writers concerns the incentive value of financial aid. Moreover, little is known about factors which may moderate serious and responsible use of financial aid.

Although the financial barrier is real for those from low income families, it is not the major determiner of college entrance, at least for those from low-income families who now enter college. This suggests that we should not overestimate the potential effect of increased financial aid alone upon college going or on persistence in college. Gannon (1971) took special note of the continuing low level of demands for higher education by Blacks due to past exploitation, in addition to low family income and rapidly rising academic costs. Gannon concludes, "increasing numbers of blacks in higher education will be due to continued improvement in the economic well-being of the black population rather than innovation by government or universities [p.   ]."

Whatever its potency, however, the barrier of financial aid may become stronger in the years immediately ahead, for it is inextricably mingled with the larger program of financial support for colleges and universities. Thomas (1970) states:

> There is a strong possibility that the curtailment of recruitment efforts and program implementation will become part of many colleges' austerity programs, in their attempt to extricate themselves from the economic squeeze. Programs that rely

> heavily on shrinking foundation monies, ... housed within private colleges and ... staffed by faculty that have not been hired for regular college positions, are particularly vulnerable [p. 31].

Thomas (1970) further predicts that the next decade will bring competition for scarce resources between middle-income groups and low-income groups.

4. The Distance Barrier:

The distance barrier is one that is related to the low income barrier. Poor families cannot afford to send their children to colleges far from home. Willingham (1970c, pp. 9-10) cites evidence that a local community college generally doubles the college attendance rates of high school graduates in commuting distance, and proceeds to provide a national picture of free access institutions together with estimates of proportions of various populations living within commuting distance of the institution, toward permitting a judgment of "how higher education serves the population."

In this most recent, comprehensive, and useful survey to date, Willingham (1970c, p. 229) concludes:

> Slightly more than 2 out of 5 people live within commuting distance of a free-access college in the United States. Potential students are least likely to live near an accessible college in rural areas or in the largest cities. In general, the larger the metropolitan area the smaller the proportion of people living near an accessible college. There is, in fact, a serious deficiency of accessible higher education in 23 of the 29 largest metropolitan areas in the country. In each case less than one-third of the central or fringe population lives within the commuting perimeter of a free-access college. In all, there are 102 metropolitan areas in which the principal city has no free-access college.

He continues to point out that the most serious urban deficiency is in the Northeast; that the West, with the most accessible colleges and the highest rate of college attendance, has less accessible higher education in the major cities than in fringe areas; that the South is "covered by free-access colleges, though segregation of institutions makes some of that accessibility illusory, and limited resources have retarded development of colleges in some states." The Midwest, he reports, was the surprising region of the study: "Despite its tradition of accessible higher education, a smaller proportion of Midwesterners live near a free-access college than is true of any other region."

Willingham concludes with an inventory of thirteen ways the availability of free-access colleges is restricted:

> Most states have insufficient colleges to cover the population.

> In several states selectivity of public institutions has a noticeable effect on accessibility.
>
> In some states cost restricts access, but most public colleges have lower tuition than the $400 guideline of this study.
>
> Many major urban areas are seriously shortchanged in accessible colleges.
>
> Smaller cities with a prominent but relatively inaccessible senior institution frequently lack a free-access college.
>
> There is a wide variety of potential and obvious minority imbalances, though these particular data revealed relatively few.
>
> Segregation is a major and general type of restraint reflected in enrollment patterns.
>
> Lack of comprehensive programs is an important restraint on the student's interest in higher education and its value to him.
>
> In many states inadequate coordination restricts opportunity in a variety of ways; inadequate articulation of vocational education is a major problem.
>
> In many states underdeveloped colleges are a more serious restraint on opportunity than the lack of free-access colleges.
>
> Sparsely populated areas are a major problem; they cannot support conventional colleges but have many poor students.
>
> Inadequate space and aid for transfer students are serious restraints on the spirit and reality of free-access higher education in even the most progressive states.
>
> Inadequate information concerning the conditions of educational opportunity has acted as an implicit restraint when inequities have not been revealed [p. 230].

It is clear from the Willingham survey that state and major urban area forces (rather than federal or private college developments) have been the most critical in developing geographically accessible colleges. The simple fact of a college nearby (even a public college nearby), given its particular choice of programs and degree of selectivity, is not enough to remove the distance barrier for the poor who cannot leave home, and cannot find locally courses they need or cannot win admission.

An extensive series of analyses of data obtained in a variety of studies by Anderson, Bowman, and Tinto (1972) have examined distance not so much as a barrier, but rather as one variable among other variables such as ability of student and kind of higher education institution. In different states--each with their own patterns of urban-rural population distribution, public and private higher education, and the like--different college-going patterns are observed. All in all, they conclude that "...the correlation between the enrollment trends in the colleges of the various states and the seeming or reported openness of state systems of higher education is impressively low [p. 266]," and present as their "simplest" conclusion:

> ...Spatial accessibility to one or more colleges has little effect, for most youth, on whether they will attend college--be the accessible school a junior college, an open-door four-year college, or a more selective institution.... Response to accessibility can and does differ with the ability and family background of youth and with the structure of higher education in a given state [p. 267].

They go on to note that in studying the relationship of accessibility to college-going, one must "specify generalizations for an interlocked set of cells characterized by types of schools, by types of communities from which students go to college, by types of colleges to which they go as enrollees, and by characteristics of youth who enter college and those who do not [p. 268]."

The burden of the two studies that at first seem mutually contradictory is that for the financially disadvantaged individual, having access to an open door college within commuting distance may make college enrollment possible, but his employment of this opportunity depends on other factors--some societal and some institutional; and, the phenomena of changes in patterns of college going, involving who goes where, becomes relatively complex when the multiplicities of individuals and institutions of various kinds are considered. Distance thus remains a potential barrier, but is moderated by other factors to an extent that Willingham's notion of an institution open and accessible to all, within reach of everyone, is something like the "chicken in every pot" where some individuals won't have a suitable pot and others will not be able to contrive a recipe and cooking strategy.

5. The Motivational Barrier:

The motivational barrier surely exists, although there has been little luck in finding a demonstrable relationship between test measures of motivation and grades, persistence, or choosing to go to college (Dispenzieri, et al., 1971). Motivation is a personality trait construct; test measures of a variety of personality traits, including "achievement motivation," have undergone a half century of testing for ability to predict some behavioral definition of academic performance without any real success. It may be that deeper and more behavioral evidences of motivation--such as the electing of a college preparatory program by a young person from low income background, as Jaffe and Adams (1971b) found--provide a better indication of motivation than traditional personality tests of empirical or construct validity origin.

An important recent study by Hackman and Dysinger (1970), involving some 1,400 students at three similar midwestern colleges, has examined evidence of commitment--by both the student and his parents--to college in relation to later persistence or withdrawal for various reasons. Although some of the findings can be dismissed as self-evident (e.g., a significant relationship between parent and/or student report of plans to continue in college and continuance), others are more impressive (e.g., a positive relationship between parental ranking of importance of college education and persistence, or between fact of return of questionnaire on commitment to college by parent versus persistence). Documenting first that their scales of commitment are not significantly related to SAT or high school rank-in-class, they conclude that commitment and "academic competence" interact to explain persistence.

Of greater relevance are findings by Davis and Borders-Patterson (1973). A number of Black freshmen in white colleges in North Carolina were asked why they chose to attend college and why they attended the particular college in which they had enrolled. In addition to such factors as propinquity, low cost, and availability of financial aid were two others: availability of an educational program with definite vocational implications, and a history of successful performance in secondary school. Good prior performance probably signals academic motivation: but, the interest in pragmatic, vocationally useful training of this group of Blacks in public and private universities is not the typical AAUP president's conception of love for learning and scholarship for its own sake. The critical point is that, for the disadvantaged, motivation for higher education probably has different origins and goals than those in which traditional colleges have cultivated and reveled.

6. The Racial Barrier:

The racial barrier--to use Crossland's (1971) term--is best defined for the writers by Egerton (1968), who addresses himself to the question of why colleges are reluctant to admit significant numbers of Black or other disadvantaged students. He states that, in answer to his inquiry:

> The reasons most often given for limited involvement, or no involvement at all, were: lack of funds, enrollment pressures, political worries, conflict with the institutional mission, fear of lowering institutional standards, lack of faculty support, inflexibility of the institution's system, and priority commitment to regular students [p. 6-7].

It is clear that although none of these "reasons"--except possibly "political worries"--are couched in racial terms, they nevertheless appear racist, for they all smack of rationalization for the act of exclusion in favor of traditional students.

An even more critical kind of racial barrier may be one that minority students find once they are on a campus that has been in the past and continues to be oriented toward the traditional student. A number of investigators (Davis & Borders-Patterson, 1973; Southern Regional Education Board, 1971; Willie & McCord, 1972) have studied the Black student on the traditionally white campus. Perhaps the most significant finding in these reports, all concerned with what the Black student at the beginning of the 1970 decade experienced, has been summarized by Davis and Borders-Patterson (1973):

> Black students on white residential campuses seem to become increasingly polarized, to become more aware of their black identity, and, in many cases, to grow more hostile toward the 'white establishment' as their college years progress. This seems to result from a variety of problems: difficulties in achieving a satisfactory social life; great diversity in values and in accepted behavior among socioeconomic classes; absence of black leadership of the whole student body (although the black student groups themselves provided some); the almost complete absence of black faculty members and guidance counselors; and great sensitivity to rebuffs, that were usually attributed to racial prejudice. Noticeably infrequent were expressions of problems of a specifically academic nature [p. 4].

In short: whether because racist overtones are very deeply embedded still in the majority culture; or whether minorities, when conspicuously among a majority, are particularly sensitive; or whether there are real differences in values and purposes in attending college, between minorities and majorities; or whether certain needed elements (social facilitation, minority leadership) are conspicuously absent for the minority member: getting into college clearly does not remove the racial barrier for the experiencing individual.

7. The Elitism Barrier:

Scholars too numerous to cite have noted that the history of higher education in the United States beginning in 1638 with Harvard College which was modeled after Emanuel College of Cambridge University, has been marked by elitism. This is attested implicitly and explicitly by such historical reviews of admissions practices as those by Broome (1903); Fuess (1950); Thresher (1966); and Davis (1968). Its manifestation in the 20th century is attested eloquently by Eble (1962). As noted in the first chapter of this report, it involves the general acceptance of the belief that institutional selectivity is synonymous with institutional quality; it also involves general acceptance of the notion that what highly selective colleges see fit to teach is what true college level work must involve. The community college movement--as the Land Grant College Act, and the subsequent emergence of public universities--set forces in motion that prescribed new and more pragmatic course offerings that conform to interests and talents of those who are not admissible to today's selective colleges. Yet it would still seem that the view of the Harvards as the epitome of what higher education is all about runs deep, and that the developing institution must strive to move closer to that model. The result is manifested by the traditional controls on quality that institutions employ--the curriculum committees and their prescription as to what is both appropriate and sufficiently rigorous, and various mechanisms such as: employment of faculty with the "right" degrees from the "right" institutions; enforcing stringency of attrition; and, the establishment of hurdles that are highly related to student ability, not achievement, as reflected by conventional tests. The result is also manifested by the two-year colleges turned four-year colleges, the teachers colleges turned state colleges, and the four-year colleges turned universities.

The growing financial crisis in higher education, together with the enrollment crisis many colleges are experiencing, may help to deter this trend toward striving for elitism, particularly when coupled with increasing federal and state support that is primarily earmarked for the general rather than the elite public. Toward that prospect, Willingham's (1970c) definition of quality seems particularly relevant:

> The quantitative problems of providing accessible higher education make it also clear that there are serious qualitative problems in converting access to opportunity. These can be grouped under four general types of relevance: personal, social, educational, and economic.
>
> Personal relevance implies an effective and humane guidance and admissions process that results in truly equal opportunity regardless of race, socioeconomic condition, or academic preparation. There is an urgent need to give much closer attention to the development of the student--his career, his competencies, his interests and attitudes, plus concrete and useful educational outcomes.
>
> Social relevance is the capacity to marshal resources and reorganize social roles. One critical problem is the fact that students often fail to find on the campus a sense of community and social commitment that they regard as essential for the national welfare. A second major issue is the fact that expanding educational opportunity brings the reality of providing appropriate education to culturally different minority and majority students who often have little interest in traditional academic life.
>
> Educational relevance includes the partially incompatible goals of teaching a currently useful skill while emphasizing a liberal education to protect the individual from intellectual obsolescence. It also implies flexible use of methods of instruction that respect individual differences, fit different content, and recognize the values of educational experiences beyond the purely academic ones.
>
> Economic relevance requires a reasonable fit between educational specifications and manpower requirements. Critical unsolved problems include the general level of

> education needed at present, the educational requirements of different occupations, and reliable means of projecting manpower needs [p. 231].

8. The Self-Concept Barrier:

The self-concept barrier is not a barrier that can be documented readily by empirical research directed toward how individuals with various developmental experiences view themselves, or how they determine what are appropriate levels of aspiration, and what are appropriate avenues for attainment of that aspiration. Rather, it is a postulated barrier that may restrain those individuals for whom the pre-college educational experiences have represented repeated frustration and failure in the terms of the school, or those who must view the availability of societal roles for themselves as pretty much the same as they are for others they know in a constricted environmental space and with whom they identify.

Using questions that attempted to get at the child's conviction of how "bright" he is, Coleman et al. (1966, pp. 27 cf) found no differences between Blacks and whites, although differences between either and other minority groups did exist. Using different questions concerning the child's sense of control over the environment, he found that Blacks and other minority children showed a much lower sense of control of their environment than did white children. Coleman et al. conclude from empirical findings that some school and some personal factors do affect the self-concept, while a positive self-concept, "as a factor in its own right," was cited as an important outcome of education.

Getting an honest and real view of how the individual sees himself is extremely difficult. Yet, the possibility that private but negative views of self, admitted to consciousness or not, may be operating, and may serve as powerful deterrents along with such related barriers as those of institutional selectivity, preparation, money, distance, motivation, or institutional elitism, suggest that removal of one or another, or all, of these barriers may not be enough.

That measurable self-concept factors may indeed operate is suggested by a study by Wyer (1966). After finding no difference in the regression of grades on conventional ability and achievement scores for samples of black and white students at the University of Illinois, he had students rate themselves as they were, and as they were viewed by friends. He concluded tentatively that students who are confident of the quality of their relationships with peers perform academically at a level that is more commensurate with their measured ability than do students who are less certain that their relationships with others are favorable.

In summary, there are a number of very real barriers to higher education for the disadvantaged posing problems that are as difficult to solve as is the critical need for solution. Some are in the condition of the disadvantaged, and some may be in their disposition; some are in the condition or disposition of the higher education institutions. But the barriers are real and pervasive; given that fact, then the conviction that, on any criterion employed, the bottom 10% of the population can only be there because of their inherent inferiority is shown to be infinitely absurd.

E. The Disadvantaged in College-- What They Experience and What They Achieve

The disadvantaged in college may be viewed from two clearly different perspectives: one is how they view themselves and the situation in which they find themselves, and the other is how outsiders--whether other students or higher education observers or scholars--view disadvantaged students and the experience of the institution with them. In the latter category, there appears the possibility that if scholars unfortunately are sorted by their color, still other critically different perspectives may emerge.

All of these perspectives, and the inevitable clash among them, are attested in what has been thought, reported in the press, or researched as to the character of and reasons for minority student protests. Although protest is definitely not a Black phenomenon, there have been significant and widely publicized outbreaks involving Black issues and demands at such institutions as Cornell, the City University of New York, San Francisco State, and Columbia University.

As this protest may reflect the most extreme and critical failure of the student and the institution to get together and get on peacefully with their purposes, if not signal accurately the total collection of climates, it is examined first for suggestions as to what life may be like for minorities in college.

Although student protest as a symbol of the 1960s may have general roots, Martin Trow (1969) has persuasively argued otherwise:

> But we have to distinguish sharply between the militant blacks and the radical white political activists; their rhetoric is often equally abusive, their tactics similarly disruptive, and at times it appears they are in close alliance against the institution and its policies and procedures. But I believe that they are fundamentally different ... militant blacks on American campuses typically demand specific changes in institutional policy or practice, centering upon the recruitment and admission of more black students without constraint by what they see as inherently 'racist' academic standards, the recruitment of more black faculty and administrators, the provision of a programme of black studies, administered by them, and living and dining arrangements also reflecting their new emphasis on separation and autonomy .... The negotiations may be tough, the demands expensive, in varying ways, the accompanying rhetoric and action frightening, but finally the blacks have ... an interest in the survival of the institutions on which the demands are being made [p. 194].

That traditionally white colleges are not the only institutions involved is shown by the tragedy at Southern University during the 1972-73 academic year, where students protested a Black administration insensitive to their needs as Blacks.

No careful review of minority group protests per se is known, though the "movement" literature abounds with elements that also appear frequently as causes for demonstrations, sit-ins, or confrontation. A chief whipping boy has been conventional tests and standards; frequent demands are made for special courses of cultural relevance; and, there is an oft-sought special housing and social facilitation. Whether institutions maintain racism or not, minority students do sometimes take extreme action to put their perceived needs before institutional officials.

What, indeed, is the experience of the disadvantaged in college? Are there important and instructive differences among the various racial and ethnic groups? Where are there similarities?

One matter that has consumed enormous energy is the question of the ability of the disadvantaged and whether conventional tests are "culturally biased." The burden of the research literature, as it applies to the Black-White differential, has been summarized by Davis (1972, pp. 110-113):

1. On scholastic aptitude or achievement tests, Negroes at a point permitting the beginning of college training tend to score significantly lower than Whites. This fact is too well known to require documentation; a recent relevant statement, however, is that by S. A. Kendrick (1968), who has estimated that "not more than 15 percent and perhaps as few as 10 percent of Negro high school seniors would score 400 or more on the verbal section of the SAT (Scholastic Aptitude Test of CEEB). Only 1 or 2 percent would be likely to score 500 or more." It is indeed this fact that is the pressure, if not the justification, behind current Black students' demands for abolition of test barriers. For, if tests are indeed used to screen applicants, more Negroes than Whites will be screened out.

2. Published studies of the ability of SAT to predict grades of Black students in predominantly Negro colleges, however, show that SAT is as valid in this kind of situation as it is for whites in predominantly white institutions. Typical of studies reporting this finding is one by J. P. McKelpin at North Carolina College, who reported (McKelpin, 1965) in his study of SAT and high school grades for predicting (Black) students' performance at his institution (italics in original): "*The predictive validities based on the data for commonly used preadmission variables are as high as those usually reported for college freshmen ... the SAT scores account for about 60 percent of the variation in the grades explainable by the data from the preadmission variables ... when first semester grades are the criterion, SAT scores give a fair appraisal of the developed ability of students entering (predominantly Negro) colleges.*"

It is true, however (probably because of the gross differences between racial groups noted before), that the use of tests directed at lower educational levels than the entering college freshmen have seemed more useful with Negroes in some instances. For example, a recent unpublished paper by John Hills of Florida State University and Julian Stanley of Johns Hopkins (Hills and Stanley, 1968) is abstracted by the authors:

> The two subtests of Level 4 of the School and College Ability Tests (SCAT) for school grades 6-8, are shown to predict freshman-year grades in the three predominantly Negro coeducational colleges of a Southern state considerably better than did the Scholastic Aptitude Test (SAT), which was too difficult for approximately one-third of the enrolled freshmen. Relative improvement in multiple correlation for SCAT compared with SAT lessened when high-school grade average became one of the three joint predictors, apparently because high school grades of SAT-undifferentiated students supplied some of the missing intellective components.

3. Although relatively few studies have yet been done of the validity of SAT to predict grades for black students in integrated colleges, the available evidence supports the conclusion of no difference in the levels of predictive validity of SAT for blacks vs. whites in such institutions, but also that if white-based prediction formulas are applied to blacks, these students as a group tend to perform below the predictions.

In the first sophisticated study of the predictive value of SAT for Negro and white students in three integrated colleges, Cleary (1968) summarized her findings:

> In the two eastern colleges, no significant differences in the regression lines (SAT predicting grades, blacks vs. whites within a single institution) were found. In the one college in the southwest, significant differences were found, but it was the Negro scores which were over-predicted. Thus, in one of the three schools, the Scholastic Aptitude Test was found to be slightly biased, but biased in favor of the Negro student.

The "bias" in favor of the Negro student in the Cleary study was a result of finding, in effect, that at one of the three schools, Negro students with a given SAT score and high school rank made lower grades than white students with identical SAT scores and high school ranks. Thus, if a predicted level of performance is used in selecting among applicants, Negro applicants selected would achieve lower actual performance levels than their white counterparts, though they would more likely be admitted. A similar finding has been obtained by K. M. Wilson (1969), who has studied performance and other characteristics of black vs. white students in four College Research Center institutions. He concludes on this aspect of his data:

> An analysis of the relationship between Predicted Freshmen Grade (combining the Admissions variable--SAT-V, SAT-M, Achievement Test average), indicates that traditional admissions criteria tend to be at least as correlationally valid for black students as for entering students generally. There is moreover some evidence that predictions made on the basis of standard formulae may tend to overestimate the first-year performance of black students in the several colleges studied.

Even more convincing are studies within the last year by Temp (1971) and by Davis and Kerner-Hoeg (1971). Temp collected data on black vs. white students in thirteen colleges over the country, and concluded: "If prediction of [... the grade point average in college] from SAT scores is based upon prediction equations suitable for majority students, then black students, as a group, are predicted to do about as well as (or better than) they actually do." Davis and Kerner-Hoeg had similar findings in six public institutions in a Southern state.

A survey of the literature by Flaugher (1970) cites a review by Kendrick and Thomas (1970), and notes a host of studies--Boney (1966); Hills, Klock, and Lewis (1963); Roberts (1962, 1966); Stanley and Porter (1967); Olsen (1957); Cleary (1968); Morgan (1968); Munday (1965); Thomas and Stanley (1969); McKelpin (1965); Funches (1967); Perlberg (1967); and Peterson (1968). These have involved SAT, tests of the American College Testing program, and other similar college level tests--both separately and in combination with high school grades. Rather than finding in these any evidence of reduced predictive validity (than that typically found for white students) Flaugher notes that test scores predict as well for blacks, and that in a large number of instances they provide better estimates of performance in college than do high school grades--a finding that may reflect the kinds of secondary schools that as recently as several years ago most blacks attended.

Flaugher (1970) also notes a number of applications to prediction of job performance--Tenopyr (1967); Grant and Bray (1970); Campbell, Pike, and Flaugher (1969)--where tests are found to overpredict, not underpredict job performance when applied to non-whites. Tenopyr (1967, p. 15) calls it "unfair discrimination (which) however, would favor, not penalize, the Negroes." Flaugher adds the explanation afforded by Rock (1970) that motivation toward achievement in college is typically a white middle-class phenomenon, and that non-whites may not be as likely "to utilize to the maximum what aptitudes they possess." There may also be problems of less adequate preparation, poorer study skills, and the intrusion of anxieties that may arise from being in a real minority in the majority college culture. All this recent evidence indicates, as in the first Cleary study, that the use of SAT or similar tests may lead to accepting Negroes who are poorer academic risks than lower-scoring whites who may be excluded if similar standards are employed. This is not to state that such admissions should not take place; rather these findings are cited to show an absence of evidence for the frequent claim that tests are biased against Negroes. For, if there is a bias, it is in the social and educational system in which these students were reared.

4. If one attempts to make a case for bias in academic tests because certain subgroups of the population make lower scores than others, the evidence points to deficit as a result of cultural disadvantage rather than as a result of racial origin.

   Cleary and Hilton (1968) studied performance on the Preliminary Scholastic Aptitude Test for grade 12 students in integrated high schools. When blacks were compared with whites of similar socioeconomic levels, they concluded:

   > From the bivariate plots of sums of items scores, it was apparent that there were few items producing an uncommon discrepancy between the performance of Negro and white students. It must therefore be concluded that, given the stated definition of bias, the PSAT for practical purposes is not biased for the groups studied.

5. Experience with special remedial programs for high-risk students, (e.g., students whose test scores indicate high probability of academic failure), or attempts to improve test scores (and grade performance) by special coaching, seem to indicate that at the very least unusual efforts will be needed to improve academic performance.

   For example, after reviewing a large body of the literature on remedial education in the community junior college, Roueche (1968) concludes:

   > The large majority of students who enroll in remedial courses fail to complete those courses satisfactorily and are doomed to failure or are forced to terminate their education. In one typical California public junior college, of the 80 percent of the entering students who enrolled in remedial English, only 20 percent of that number continued on into regular college English classes.

   In a study of the effect of well-contrived and intensive instruction (though of short-term duration from 4 to 6 weeks) in the kinds of cognitive tasks involved in scholastic tests, S. O. Roberts of Fisk University and D. B. Oppenheim of Educational Testing Service found (Roberts and Oppenheim, 1966) with students with inadequate instruction in the past that "it does not seem reasonable to expect that similar short-term instruction given on a wide scale would be of significant benefit to disadvantaged students."

In summary, then: deficit on conventional tests is better explained by socioeconomic disadvantage than by racial factors. Differences in test score means for racial or socioeconomic groups is not in itself evidence of test bias; as Thorndike (1971) has noted, "This type of definition prejudges the reality of differences between groups, ruling them out _a priori_." Thorndike goes on to state:

> If one acknowledges that differences in average test performance may exist between populations A and B, then a judgment on test-fairness must rest on the inferences that are made from the test rather than on a comparison of mean scores in the two populations. One must then focus attention on fair _use_ of test scores, rather than on the scores themselves [p. 63].

Tests appear to reflect what is required to perform under traditional instructional strategies and grading practices; attacking the test is justified to the same extent attacking conventional educational practices is justified.

Given the placement of the disadvantaged in a system that is not tuned to their ways of learning, what other differences are significant? An excellent bibliography entitled "College and Minority/Poverty Issues" has been published by the American Council on Education (Furniss, 1969) that includes many reports, some personal and individual, of what the minority or poverty student is likely to experience. General and significant to all, with the possible exception of the poor white who is less distinguishable and more infrequently studied or of the Black in a predominantly Black college, is that students find themselves typically to be more a minority than they were in the homes and communities they left. "We are so few," (Davis & Borders-Patterson, 1973, p.9) is a poignant comment frequently reported; and the ways and traditions of the institution and the values of the traditional student stand out starkly as someone else's world. As McSwine (1971) states:

> To many black students the white university has come to strongly resemble a white plantation; an existentialist island of despair and hopelessness from which they slowly descend, inexorably and relentlessly, into a quagmire of quicksand. The air hangs heavy with pedagogy, but it is white pedagogy, with white rules and white rewards. But still black students persist in ever greater numbers, attesting to a still feeble thread of faith that the system can yet be changed [p. 28].

In almost every instance, there appears to be a natural reaction of searching out others of the same minority who may serve to help maintain the cultural/racial identity. Such banding together gives the minority student (McPherson, 1970):

> ... a sense of cultural presence on the white campus which helps to decrease feelings of isolation and loneliness. (Identity groups) are collective, cultural islands on which black students can pause and assess themselves, and their direction, before moving on [p. 100].

Accepting or adjusting to the majority world, McPherson states, will be effected:

> ... only with time and understanding and a recognition that munificence, no matter how well intentioned, is still directly related to the ability of the donor to recognize the consequences of his act and the intellectual and emotional capacity of the recipient to perceive whether what he has been offered is truly of value to him [p. 100].

The joining together is always, at least in its initial manifestation, essentially separatist. It is sometimes hostile as well. The Association of Black Students at Wayne State University, for example, organized a "Black Symposium" in January, 1968, which produced these resolutions (reported by Kilson, 1968):

> That black people should arm to defend themselves.
> That black people are black people no matter what political viewpoints they hold.
> That there should be a Black Mafia to deal with traitors in the revolution.
> That black people should be against all United States aggression and should definitely support the Viet Cong.
> That black people should remove all white people from membership in their organizations [p. 32].

Almost every study that has examined the minority experience on a majority campus points to acute social and friendship needs of minority students. Part of this seems to be the relatively few choices for heterosexual activities, compared with those that the majority enjoy; part seems to be that sustaining friendships occur more frequently among like-valued individuals who accept the same modes of social behavior. However, for Blacks in nonresidential, predominantly white community colleges, Davis and Borders-Patterson (1973) found that problems, even social ones, were nonexistent. They concluded that, in this situation, the Black students "had never left home."

With regard to distinctive cultural characteristics relevant to higher education in minority groups other than the Blacks, some historical or analytical analyses are beginning to appear on the Chicano; only occasional and fragmentary materials on other minorities--e.g., the American Indian or the Puerto Rican--were found. Casavantes (1969) draws a careful picture of the Mexican-American that compares his "characterologic or interpersonal styles" with those of most people living in the culture of poverty. In this category, which most Chicanos occupy, are such characteristics as living in the context of an extended family (spending more time with family), of being non-joiners, of preferring the old and familiar, of demonstrating marked anti-intellectualism, of being unable to postpone gratification, or using force to settle arguments, and of being fatalistic in their view of the world. Beyond this, however, and the recognition that most Chicanos are also Catholics, speak Spanish, have parents or grandparents who came from Mexico, and are generally distinguishable, Casavantes warns against too much further stereotyping, or of drawing a picture on only too limited and biased a sample. It is reasonable to assume that some Chicanos draw on a Mexican culture and others on a Castilian or Spanish set of traditions. And there is increasing evidence that Chicanos, like the Native Americans and Blacks, are beginning to challenge the formulations of Anglo sociologists and anthropologists (e.g., Penalosa, 1970, p. 51).

Of all the minority groups, the Native American in college seems least understood. Early observations (Salisbury, 1966; 1969) include such possible traits as reluctance to excel at the expense of others, of strong and binding familial and group ties, of having experienced reinforcement for reticence, and--in the alien world of college, strange food, incomprehensible social patterns, and irrelevant or confusing programs that do not fit the background of people he knows and admires.

A final observation: There are few, if any studies that examine any dimensions of intra-culture differences. The urban Indian and the reservation Indian, the militant Black or the conforming Black (to cite only two examples) would seem to present very different curricular and extracurricular needs and challenges. It may be that the current press for a cultural identity is homogenizing the formulations and that more penetrating analyses would be useful.

F. Programs for Facilitating Access to and Success in College for the Disadvantaged

A concept and an acceptance of programmatic support for "disadvantaged" students in higher education begins to appear with some frequency over a range of higher education institutions only after the beginning of the 1960 decade. Institutions with special commitment to minorities or the poor had existed for some time; yet many that served the lower ranges of talent (measured traditionally) or socioeconomic levels had, following World War II, set as their objectives the improvement of the institution by becoming more selective and more traditional. "No more spoon feeding for college illiterates" had been a frequent battle cry of faculty in upwardly mobile public institutions.

The possible slowing--or reversal--of that trend seems to be a function of several factors. First, the slowing of the birth rate following World War II, together with the rapid emergence of the less expensive community colleges that in some areas siphoned applicants away, began to convince some institutional planners that the institution's pool of potential students was neither bottomless, nor could the institution confine itself only to those that could be skimmed off the top. The desegregation ruling of the Supreme Court, and the burgeoning activity of federal and other civil rights agencies and organizations, began also to attest that responsibilities were not those of public lower education alone. Some brave institutions began to experiment and advertise their experimentation--as did Cornell in the

Cornell Alumni News of June, 1968, or as Antioch did in its Antioch College Reports of April 1965 or College and University Bulletin of 1967. These reports are interesting as historical documents, for they portray what is in 1973 being more widely "discovered," and stress several early opinions and findings. First is the concern that one institution expressed, in the report of its new experiment in "interracial education," through the words of Thomas Wolfe:

> So, then, to every man his chance--to every man regardless of his birth, his shining, golden opportunity--to every man the right to love, to live, to work, to be himself, and to become whatever thing his manhood and his vision can combine to make him--this, seeker, is the promise of America.
> (Thomas Wolfe, You Can't Go Home Again)

That is: the appeal for looking beyond traditional student impacts was to making "the promise of America" available. Second was the discovery that these new students were coming into a strange and unfamiliar world, yet one that they appeared to know better than that world appeared to know them. Immediate charges of institutional racism were inevitable.

Yet the most deeply engraved strategies the institutions had to draw upon came from the notion that these new students lacked what they needed, in traditional academic responsiveness and preparation, to meet the demands of the institution; and, if the institution could find ways of helping the student meet the demands of the institution, nothing would be sacrificed, no jeopardy sustained. This could be done in two ways: by selecting only the most able of the disadvantaged, or by providing intensive remedial activities. As the top of the pool was skimmed off very quickly, attention soon turned to the latter.

The first reports dealing with support services and their effectiveness tended, in general, to be more descriptive and a priori than empirical. For example, in a review of a variety of experience in providing services to students from disadvantaged backgrounds, Walz, Krovas, and Wert (1971) drew the following conclusions.

- A growing body of literature indicates that compensatory programs may not be the most effective means of maximizing individual potential.
- Programs in which the student enrolls in the regular curriculum, but which provide ample support services, facilitate student adjustment to the institution.
- Students need better information on financial aid.
- A successful program must have full institutional commitment from students, faculty and administration.
- Successful programs adapt the university environment to the individual and the individual to the university environment.

- Successful programs are activist and accurately reflect the makeup of students served.

Yet, these conclusions, while perceptive, are based more on observation and opinion than on experimental study of programmatic factors that are related to improved probabilities of survival in college.

Of the host of intervention strategies to equip disadvantaged students for academic and personal adjustment to colleges, Williams (1969) states that it is extremely difficult to determine specifically what factors are responsible for success of programs. He suggests that by evaluating programs one should try to gauge the effectiveness of some of the following components:

- institutional commitment to the program
- financial aid (are some forms more beneficial than others?)
- special housing (should separatist facilities be set up?)
- intensive orientation (should students be made aware of their academic deficiencies?)
- special courses and small-group instruction
- tutorial assistance
- personal counseling
- help in managing financial resources
- remedial courses: credit or non-credit?
- extent of student support for the special program.

Beyond an identification of program components, Williams asks the following provocative questions about special programs. How much financial support is needed to enable the student to assimilate into the university? Will assimilation between races occur if special housing is provided for the disadvantaged? Should students attend all classes with modal students, or should special courses be established? Williams' emphasis on assimilation raises a question that reveals one of the difficulties in formulating criteria for evaluative studies of program effectiveness. Programs may fail in the eyes of the institution because they have alienated the trustees, administration, faculty, or a large portion of the student body; yet they may have been notably successful with the disadvantaged students they were mandated to serve. H. R. Kells,[1] a member of Rutgers University's Equal Opportunity Council, notes that colleges and universities must be willing to change in the following ways if they are truly committed to the needs of disadvantaged students:

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[1] Personal communication with Mr. Chuck Stone, formerly of ETS.

- The university must have a philosophical commitment to equal opportunity.
- It must be willing to reshuffle priorities permanently.
- Funds must be made available to pay full-time salaries for key positions in admissions, talent search, and counseling.
- There should be several layers of entry throughout the university for the disadvantaged.
- States must be willing to provide ample financial aid.
- Equal opportunity must be multi-racial.

Wisdom and Shaw (1969) add the following suggestions for actualizing special programs:

- Recruitment should be expanded beyond the school systems and into the neighborhoods (on the streets, in factories, in pool halls).
- Remedial programs should be made available, but not compulsory. They should focus on reading and study habits and the improvement of basic skills.
- Extensive tutoring programs should be staffed by upper class black students.
- A corps of black counselors should be developed, with access to resources of assistance.
- Students should be steered into courses where they can be successful.
- The curriculum should begin to reflect minority accomplishments, perspectives, and needs.

Bayer and Boruch (1969a) present some penetrating questions which must be explored before the nature of the impact of disadvantaged students on institutions of higher education can be meaningfully assessed:

> What new curricula and programs might need to be adopted? What educational programs expanded? What might be the specific needs for special remedial programs, or requirements for guidance and counseling services? What special demands might be placed on institutional financial resources and scholarship programs? How might the changes in admissions policies of many colleges and universities in the United States affect those few institutions, particularly the predominantly black, which historically have served a large proportion of

> underprivileged and ethnic minority students? Is the recruitment of minority students actually bringing a larger proportion of young black people into higher education? Or are the same proportionate numbers being redistributed among different institutions? How is the racial and ethnic composition of American colleges and universities changing over time? How are the educational and career aspirations of black students changing? How much will the educational level of black young adults in the population change over time [p. 372]?

As suggested earlier, the bulk of published reports of support services for disadvantaged students tends to be opinionated and descriptive. A multi-college review of disadvantaged students that relied on survey questionnaire data as well as site visits and interviews has been reported by Helen Astin (1970). One set of analyses is concerned with attitudinal variables (e.g., satisfaction with college) by race and by participation in special programs; another set of analyses is concerned with impact criteria such as academic success and persistence. Yet about all that can be concluded from this extensive effort is that students with good grades in high school are more likely to be satisfied and successful in college; or that Blacks are more likely to be dissatisfied with college and Indians to drop out. The chance for any hard findings to emerge in this study was, however, hampered by fragmentary returns of questionnaires, reliance on questionnaire criterion items that produced suspicious results (no clearly expected differences in race, or on certain biographical items such as "flunked a course," between those reporting participation in a program for disadvantaged students and those reporting no participation), or the focus of the institutional case studies (and some criterion groups drawn therefrom), on the "nation's wealthiest" institutions.

In short: in one search for proof for or against impact of support services, we are forced to agree with the conclusions of Etzioni (1971):

> In reviewing the findings of about 150 different studies of various systems of compensatory education, I have concluded that evaluating the effects and benefits of this approach is an extremely difficult undertaking. No piece of evidence with which I am familiar supports the notion that, by putting disadvantaged students through a few courses, seminars, weekend workshops, or summer sessions, one can remedy the effects of four hundred years of discrimination or of the four or five years that separate disadvantaged students from their academically prepared classmates. One does find in the literature the cases of three students here and eight students there who have benefitted from such programs; however, the main conclusion from the same body of literature points to the need for reaching the disadvantaged student as early in his academic career as possible [p. 115].

Etzioni goes on to state that only by an intensive, "multi-phased," well-staffed, and "rich system of compensatory education can we avoid awarding meaningless degrees or promoting the failure of students who find themselves educationally frustrated, thus compounding the already existing stigma." His proof, and ours, rests on urgency and hope, rather than on clear demonstrations of success.

Special Support Programs in Graduate Study

A 1969 survey of 248 responding graduate institutions (of 287 who are members of the Council of Graduate Schools) (Parry, 1970) found that of the respondents, 35% stated they did have special programs or procedures for applicants from "deprived circumstances," and an additional 24% indicated some special treatment. The essential findings were:

> Common methods of recruitment include sending literature to undergraduate schools, visiting campuses, and making personal contacts. Faculty members are most active in the recruiting. Some graduate schools recruit nationally but many confine their efforts largely to certain states or regions.
>
> Substantial numbers of graduate schools waive or liberalize the admissions requirements or previous scholastic records and test scores. Letters of recommendation are the most frequently used additional criteria for evaluating the applicants.
>
> Special remedial services are offered at many of the graduate schools. Most commonly reported were tutoring, counseling and advising, and offering courses at the undergraduate level.
>
> The most frequently provided type of financial aid is partial or total tuition remission. Aid for fees, fellowships or assistantships, and occasional assistance for room rent and board are other types. The dollar value per student ranges up to $5,000. University funds are the most common source, followed by the Federal Government and a few foundations.
>
> Most of the special procedures and programs were established in 1967 or later. Few changes have been made or are planned. Some plans include more money for the program, some expansion, and greater recruitment efforts.
>
> Many graduate schools report 10 or fewer disadvantaged students enrolled. The number of such students has increased substantially in recent years.
>
> Most of the graduate schools reporting special procedures or programs feel that it is too early to evaluate their effectiveness. Others reported that student achievement has been good or excellent and that the rate of attrition has been low [p. 3].

Empirical Evaluations of Support Programs

Although support programs for disadvantaged as such are relatively new, although their staffs seldom include evaluational research capability, and although funding has seldom included money for local evaluation, there are beginning to appear--principally in institutional or DSA files--some (generally unpublished) institutional studies. Although the greater portion of these reports cite proof such as "increased visibility and responsible assertiveness of client populations" or "growth of programs" (M. E. Wilson, 1971, p. 20), some involve empirical studies.

These "empirical" studies take three essential forms. One is a tracking of students over time through their support-service experience; another is a correlational analysis of factors in academic performance and persistence; and the third is an examination of student attitudes.

As might be expected, the data on student persistence are mixed (most reports fail, incidentally, to report persistence of regular students). For example, Dispenzieri and Giniger, in an undated paper stamped "Not for Distribution" conclude, after studying the SEEK program at the City University of New York: "At this stage, special programs may be too little, too late, or too inappropriate for some students." For that program, Kweller (1971) (in a paper also stamped "Not for Distribution") reports that of 1700 students entering three classes, 36% had been graduated after four years. He found that 90% of those College Discovery program students completing community college two-year programs enter senior institutions and, of these, two-thirds graduate; and, that given reduced credit course load and remedial instruction from the beginning, disadvantaged performed "almost as well as regular students." Dowdy (1971) found at West Chester State College (Pa.) that of 110 students entering over three years, 60% had failed or dropped out and that attrition could reach 90%; he noted improvement as the Special Services program continued to develop--that is, found a director, established activities, etc. Yet Kitano and Miller (1970, pp. 56-57) report almost 90% of the Educational Opportunity Program students in California public institutions who entered in 1967 and 1968 continued into the second year, and that at the University regularly admitted EOP students made a freshman average of 2.47, specially admitted, 2.00, against an all-freshman average of 2.67. Klingelhofer and Longacre (1972), reviewing progress of 52 EOP students clearly minority group members with substandard high school records in a "fairly selective" western public college against a control group matched only on sex and high school of graduation, concluded:

> ... that EOP students persist and progress as well as other students, but that their performance is clearly and significantly below that of the typical student. There should be small solace in the progress or persistence figures, however; only a minority of students, whether EOP or regular admittees, resemble the students who live in the imagination of faculty members for whom the courses of study described in college catalogs exist. About one-half of the students drop out; those who do complete their course of study will need an average of five years or more to graduate. And on this melancholy scene, EOP students earn lower averages, make more unsatisfactory grades, and are more likely to leave in poor standing or to be disqualified academically than the

> ordinary entrant. But these facts have to be considered in context. The EOP students were in almost every instance extremely high risk; their background and preparation were weak; and they were the first small group of students enrolled at an institution which had almost no minority students, although one-fifth of the community in which it existed was made up of minority groups. Potentialities for success were also somewhat jeopardized by a college which to some extent lacked both the skill and will to accommodate this new clientele [p. 7].

At Boston University, Smith (1972) reports that for an intensive two-year program involving team teaching, a core curriculum, extensive counseling, and close attention to students, three classes of over 500 students placed 64% in four-year colleges, with 84% of those transferring within B. U. receiving a baccalaureate degree.

A series of studies by MacMillan and his associates at Santa Barbara City College (LeBlanc & MacMillan, 1970; Adams, LeBlanc & MacMillan, 1970; MacMillan, 1970a-c, 1971a-c) documents the financial and scholastic disadvantage of students in that institution's Extended Opportunity Program, and finds generally that tutoring improves retention rates or that those who accept tutoring are more likely to persist than those who do not. The experience there also suggests that financial assistance alone is not enough; that tutoring to the extent of a cost of about $14.00 per credit hour attempted does appear effective. Braverman (1971) shows dramatic change in before/after writing samples for disadvantaged in an intensive six weeks summer program designed to improve communication. Studies at Texas Southmost (Texas Southmost College, 1971, 1972) of their tutoring program show improved grades and demonstrate, from increased use of tutoring when the tutoring center was moved to a central location on campus, the importance of such structural factors.

More significant than such occasional findings is the general paucity of reports of academic performance and retention. This situation can only lead to the suspicion that, on the whole, few institutions have yet achieved performance and retention rates that compare favorably with those for traditional students at the same institution. These fragmentary and scattered reports also point up some of the hazards: low attrition of disadvantaged can be explained by a generally low institutional attrition rate, or by shunting students into atypical courses where different grading standards are employed (at least, the necessary control groups may not be useful because of different course loads and patterns). On the other hand, there is a suggestion that work over an extended time, with an aggressive and personal faculty, a coordinated, multi-faceted support program, and an environment where the gulf in ability between disadvantaged and modal students is not absurd, can result in substantial numbers graduating. And a final note of caution: as Thomas (1971) has pointed out in citing Brown University data: What one institution sees as "high risk" may be eligible for regular admission at all but 5 or 10% of all other institutions. Estimates of the success of disadvantaged students must take into account how high risk they are indeed in the first place; what the institution considers going attrition rates, which may be applied indiscriminately, as Aiken (1963) and Webb (1959) have pointed out; and what indeed these students learn. That the latter cannot be attested by standardized norms-reference tests of achievement (like the Graduate Record Examination) is suggested by Thomas and Muller's (1972) exploration for USOE concerned with the efficiency of educational expenditures for compensatory education.

There have been even fewer attempts to study empirically the effectiveness of various support program components such as counseling, particular remediation, or ethnic identity activities. For example, Haettenschwiller (1971) states the opinion that traditional counseling approaches have seldom proved appropriate for the disadvantaged, and suggests effective counseling must involve the counselor as a provider of resources, who makes initial contact in an outreach situation, recognizes the need to motivate parents, and is sensitive to tensions that relate to the counselee's life style that he may need maintained rather than eased. Vontress (1969) similarly stresses knowledge of traditional life styles peculiar to the different subcultures. But demonstrations of effectiveness of counseling the disadvantaged are as rare as they are for counseling in general.

Studies of individual factors affecting retention on academic performance for students in support programs suggest in one instance academic or technical high school program graduates (Dispenzieri & Giniger, undated), and, as might be expected, that high school average was the best predictor (when diploma track was held constant). This study did compare grade regressions for modal vs. disadvantaged students, but was hampered by the range restriction problem, with different variables restricted in each of the two groups.

G. Summary

The state of the art of research on the disadvantaged in higher education would seem still to be in the infancy stage. There is yet no clear understanding of the causes and remedies for the deficits in traditional learning activities that the poor sustain, though the barriers are real and well documented. Current large-scale efforts consist of intensive application of packages of traditional vehicles--counseling, tutoring, remediation, etc.--though with a growing awareness that the target group has distinctive needs and responses that an educational psychology and instructional system based on the majority population cannot yet adequately encompass.

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CHAPTER 3

The Design and Procedures of the Study

The general purposes and specific objectives of the evaluation study reported herein were outlined in Chapter 1 of this report. In brief, these purposes and objectives have to do with the assessment of existing programs in higher education for disadvantaged students--with particular concern for the degree to which the programs are beneficial to students, meet their academic and personal needs, and insure their retention in school, and also special concern for the impact of the programs on the institutions.

The study was conducted in two phases. The first, a planning phase, began in August 1971, and extended through January 1972; work in this period involved the literature review summarized in the preceding chapter, the inventory of specific questions the study should address, the full development of the research design, the development of administrative and data management procedures, the development of instrumentation, and a preliminary survey of all institutions of higher education in the United States. The second phase focused on the data collection, analysis, and report, and began in February 1972, with data collection completed in June of 1972.

A. Phase I - The Preparation and Plan for the Study

1. The Scope of Work Defined by the Request for Proposal

The basic Request for Proposal defined a scope of work that would utilize a national sample of 100 colleges, overweighted with institutions with a substantial number of disadvantaged students. Ten thousand students from these colleges, representing both disadvantaged and regular students, would be polled by questionnaire, followed by in-depth interviews with 1,000 disadvantaged students. In addition, a group of thirty institutions from the sample would be visited; these institutions were to include an overweighting of colleges and universities believed to have exemplary Special Services Programs.

2. The Questions to Be Asked by the Study

As the literature search progressed, questions that the study should answer were inventoried. These questions included, in general: the characteristics of the students in the programs; the characteristics of the institutions that provide special support services for disadvantaged; the criteria of success; individual, institutional, and programmatic factors related [illegible] success; the impact of programs on the students; the impact of programs and disadvantaged students on the institutions; the effectiveness of the federal effort; the prescription of proposal evaluation and project monitoring procedures; and the projection of national needs. Representative questions in each of these topical areas are provided in the following pages.

Characteristics of students in the programs: What are the background characteristics of the students that may be relevant to their entry into and progress in higher education? How do they differ from regular students in these regards? Considering the several racial/ethnic groups represented, in what ways do these groups differ? What attracted these students to persist through high school and into college? How critical do the various elements in special assistance programs at the pre-college level, particularly in federally supported programs, seem to be? What do these students feel they need at the point of entry into higher education? What are their long-term aspirations for continuing education and adult work roles?

Characteristics of institutions serving the disadvantaged: What kinds of institutions typically serve the disadvantaged? What kinds of institutions have made substantial moves in this direction? Are there regional differences in institutional and program availability for disadvantaged students? What local or national forces served to encourage the programs or the acceptance of disadvantaged students? What variety of support services are offered, and at what costs? How are programs supported? What differences exist between programs supported by federal sources and programs supported by other sources? What regular program or activities of the institution seem to have special relevance or utility for the disadvantaged?

Criteria of success: Of the needs perceived by the student, how effectively are these served by the special programs? How satisfied are the students with their academic programs and progress, their social life, and their chances to continue? How successful are the affected students in terms of academic performance and persistence? What form do institutional evaluations of program success take? What are the attitudes toward the programs and their students by other students, faculty, administration, and program staff? What problems are encountered in program installation, maintenance, and enhancement, and which of these appear critical? Are the programs reasonably cost-efficient?

Individual, institutional, and program factors related to success: What kinds of students profit most from support services? What personal characteristics and traits are related to satisfaction with program and institution, to program impact, and to success and persistence in college? Are there differences in the impact of programs that are related to the racial/ethnic group served? With regard to institutional factors: What institutional features assure institutional receptiveness and facilitation--selectivity, affluence, institutional policies and goals, related facilities, faculty and administrative attitudes, and so forth? With regard to program factors: What program director characteristics and roles are associated with successful programs? Under what priorities and objectives do the most successful programs operate? What is the content of successful programs, and what content seems most crucial? Finally, what critical interactions exist among these three classes of factors--that is, what kinds of students are best served by what kinds of programs in what kinds of institutions?

Impact of the programs and the students on the institutions: What have been the impact and consequences of the programs and their students on the institutions? What changes in prevailing student and faculty attitudes and behavior seem to have occurred? What features of the programs, and what kinds of students, would be preserved if federal support were withdrawn? What parallel activities or functions have been developed, and how permanent do they seem? Are there changes in regular courses, programs, and institutional goals that can be attributed to the new support programs and their students?

Effectiveness of the federal effort: What has been bought, at what costs in the different institutional markets? Are the programs that are now being funded effective? Are the most appropriate target groups of disadvantaged students being reached, and to what degree? How effective are the current proscriptions of guidelines, award, and monitoring procedures by USOE, and what changes would make them more effective? How effective are the federally supported efforts in comparison with efforts supported by other sources?

Prescription of proposal evaluation and project monitoring procedures: From the answers to the foregoing questions: What constitutes an effective program, and how may it be recognized from the material presented in the proposal? What kinds of advice and guidance are needed from federal program officers? What kinds of data on the institutions, programs, and students should be routinely collected?

Projection of national priorities and needs: What numbers of students need special assistance now and what will be the need in five years? What types of support programs are needed, and what are the costs? Where should these be placed most effectively--by region and by institutional type?

3. The Development of the Instrumentation

Six different questionnaires were developed for use in the evaluation study. These included: (1) a brief questionnaire to be directed to all institutions of higher education as a census of numbers of disadvantaged served, special support services, and costs (the "All-institution Census"); (2) a self-administering student questionnaire; (3, 4, 5) three institutional questionnaires designed to gather general institutional information, information on special support programs for the disadvantaged, and information on other regular support programs felt relevant for or used by disadvantaged students; and, (6) a student interview guide. (Questionnaires 2 through 6 were to be directed to students (or institutions) representing samples of U.S. higher education institutions, as described in Section A-5, p. 3-11, of this chapter.)

The All-institution Census Form: The purposes to be served by the All-institution Census were: (1) to provide a base for determining specifications for stratified samples of institutions and students to be studied in a later stage of the evaluation project; (2) to provide a national census of special programs for disadvantaged students, with particular attention to voids and overlaps in educational treatment and financial support; and, (3) to provide a data base for a monitoring and management information system for USOE, and to pretest later information requests that might productively be incorporated in the Higher Education General Information Survey (HEGIS).

The content of the All-institution Census included the following eleven topical areas: (1) the total current fund expenditures for the fiscal year ending 1971; (2) full-time equivalent opening fall enrollment in 1971, as defined by the HEGIS survey of that year; (3) on-campus residence capacity; (4) selectivity in admissions; (5) descriptions of special programs available for disadvantaged students in terms of year of origin, numbers of students served, faculty and staff involved and extent of their involvement, cost, and source of support; (6) available support activities within the special programs; (7) total costs of special programmatic attention for disadvantaged students; (8) estimate of numbers of students and costs for "optimal" attention to disadvantaged students in 1972-73; (9) opinion of President as to sources from which increased support should be sought; (10) estimate of proportion of undergraduates from families within the National Poverty Classification; and, (11) estimate of proportions of disadvantaged students transferring, graduating, or continuing for graduate study. Space was provided for comments. An instruction sheet with the necessary definitions was also developed. The questionnaire and instruction sheet are given in Appendix A.

This questionnaire was reviewed by nine officials of state governing or administrative boards and administrators of various kinds of institutions. Because of time constraints and the straightforward nature of the questionnaire no formal pretesting was conducted.

The Student Questionnaire: The purposes of the student questionnaire were to obtain information about student origin and characteristics at a sample of U.S. institutions of higher education, use of special support services, attitudes toward and performance in college, and aspirations for continuing in higher education and for ultimate vocational role. The questionnaire included criterion items to determine the existence and nature of disadvantage and criterion items designed to permit identification of the disadvantaged student in terms of Special Services Programs guideline definitions. In addition, ethnic or racial group was identified as were a number of other characteristics potentially relevant to his adjustment to college such as: sex, age, veteran status, parental education and occupation levels, and academic performance in high school. Even more critical were questions designed to yield student derived criteria of (1) program and college impact and (2) student success and satisfaction. These included reports of level of academic performance in college, degree of student satisfaction with a variety of aspects of life and work in college, degree of knowledge and use of facilitating program elements, extent of plans for education beyond present program of study, and value laden attitudes associated with traditional academia.

Three basic and important kinds of analyses of data from the student questionnaire were contemplated. The first analysis was to be essentially descriptive. Here, the "disadvantaged" student would be contrasted with the "modal" student, in terms of (a) essential biographical characteristics, for example, age, sex, marital status, parental occupational and educational levels, community of origin; (b) educational and vocational activities, accomplishments, and aspirations; (c) perceptions of current educational environment; (d) perception of educational, social, and personal needs; (e) personal values and cultural affiliations; and (f) plans for the future.

The second basic analysis had as its goal the determination of personal and institutional factors related to program effectiveness, as attested by student-oriented criteria (e.g., academic performance and satisfaction with college).

The third basic analysis was to be concerned with examining differences among the following three institutional classifications that will be represented in the sample institutions to be employed: (a) institutions with federally supported Special Services Programs; (b) institutions with special programs or activities similar to those provided in the Special Services Programs, but supported by other than federal sources; and (c) institutions with disadvantaged students but no particular formal program or provision of specific services for disadvantaged students.

Two major sources were utilized in the formulation of the questionnaire. The first was the inventory of questions posed for the total inquiry and the review of the literature on disadvantaged, including reference to unpublished working papers of various researchers, followed by discussion with these people where such seemed fruitful, for example, Dr. Robert Berls, OPBE; Dr. Leo Mundy, American College Testing Program; and Dr. Ed Gordon, Teachers College, Columbia University.

The second major source was review of a large number of published or proposed questionnaires. For example, some key items were taken verbatim from: the College Student Questionnaire, Part 2 Form 200 D, published by ETS; questionnaires proposed for use in the National Longitudinal Study of the Class of '72 by the Research Triangle Institute; the Student Descriptive Questionnaire of the College Entrance Examination Board; and, the Questionnaire on Student and College Characteristics, Form QU 691, published by ETS and CEEB.

Many items were adapted from other instruments, including the Inventory of College Activities of the American Council on Education; the College and University Environment Scales by C. Robert Pace; a pool of items assembled by Martin Trow for ETS following a formal review of some 140 published and unpublished student biographical inventories; and the Institutional Functioning Inventory and Institutional Goals Survey of ETS.

Some 800 potential questionnaire items were assembled, and reviewed by a number of ETS research staff who were specialists in minority affairs and college student survey questionnaire construction. This review resulted in about 600 potential items. A final selection of items requiring 449 responses in an inventory or multiple choice format was made after study and a day-long conference between professional ETS staff assigned to the study and representatives from USOE, including: Dr. Robert Berls and Dr. Sal Corrallo, of the Office of Planning, Budgeting, and Evaluation (OPBE); Dr. John Rison Jones of the Division of Student Assistance; and, Mrs. Sheila Platoff, representing the Acting Associate Commissioner of Higher Education.

The proposed questionnaire was further modified, although not extensively, through formal reviews by the OPBE staff, representatives of OE to the Office of Management and Budget (OMB), and by OMB.

The final questionnaire, designed to permit recording of responses on computer tape by key-taping, is provided in Appendix A of this report.

The Institutional Questionnaires: The general purpose of the institutional questionnaires was to collect intensive and detailed statistical data on the institution, together with attitudinal data from key individuals (program directors), for use in later analysis of institutional factors associated with successful programs and disadvantaged student functioning.

Part I of this instrument was directed toward general institutional history in serving disadvantaged students, enrollment trends over the past five years, ability, and attrition data for modal and disadvantaged students, minority group representation on faculty and staff, institutional definition of disadvantaged, and finally, an inventory of past and present programs, activities, and emphases available that may facilitate the retention and progress of disadvantaged students, together with any evidence of their effectiveness. In final format, this rather formidable instrument provided over 400 spaces requiring write-in statistical data (for example, headcount), some twenty-five open-end items requesting information on institutional policy, and over 200 data items that could be entered by checking an appropriate response option provided.

The second institutional questionnaire (Part II) was designed to permit directors of special support programs for disadvantaged students to describe these programs in terms of formal objectives, current budget, year of origin, numbers of students served, staff assigned to program, description of program elements (counseling, tutoring, and so forth, with cost of each), source of funds, and some 25 open-end questions about program policy and functioning, forces that created the program, problems experienced in operating the program, needed changes, criteria used in evaluating program effectiveness, and brief general information as to perceived needs of students served.

The third institutional questionnaire (Part III) was, in effect, a brief version of the second institutional questionnaire, but directed toward program directors for regular college programs judged to be particularly relevant for or popular with disadvantaged students. Again, objectives, budget information, numbers of students served, and general information about program functioning was requested, usually with particular emphasis on elaborating on activities affecting disadvantaged students.

A set of definitions and instructions for completing these questionnaires was also developed. As for the All-institutional Census form, no elaborate pretesting was conducted, but tentative forms were discussed in interview situations with a variety of institutional staff of the kind to whom the questionnaires might be directed for completion.

The three institutional questionnaires, together with the instructions, and as ultimately approved by USOE and OMB, are included in this report in Appendix A.

The Student Interview Guide: The basic scope of work for the evaluation study included the in-depth interviewing of a subsample of 1,000 disadvantaged students surveyed by the student questionnaire. The in-depth interview was to focus on the more personal, subtle, and dynamic factors affecting the students' performance and outlook, and was to validate or amplify the student questionnaire data.

Prior work in this area by members of the ETS research team[1] had found that student peers could successfully be trained and commissioned to take on this task on their home campuses. Although such interviews and reports lack certain qualities (e.g., avoidance of leading questions; careful and objective report of what the student said), that might be expected of professionals, the important problem of easy, and natural access to the target student is solved. Excesses or biases in reporting are treated by gathering together the interviewers from a number of campuses to tell each other what they learned, and to verify tentative conclusions drawn from their interview reports. This procedure also yields another rich source of data: student interviewers are systematically exposed, through random sampling, to a cross-section of the interviewer group they represent, and their reports to one another become, in effect, "expert testimony" which becomes another data source in itself.

It was decided to use this strategy for the in-depth interviews for the current inquiry. Accordingly, a rather detailed structure for the interview and instructions for its use were developed.

The student interview guide drawn up by the ETS research team consisted of questions in ten topical areas:

1. Secondary school background--the student's perceptions of strengths and weaknesses, past performance level and accomplishments or lack of them. The essential purpose of these questions is to search for the student's perception of his strengths and weaknesses of preparation, to determine if the special program features his college provides seem relevant to his expressed needs.

2. Factors affecting the decision to attend college and to attend the college of choice--the student's perceptions of influences affecting his decision. Experience with and reaction to features of any facilitating programs for college-bound disadvantaged. The essential purpose of these questions is to evaluate the impact of any special precollege forces of academic facilitation or of resulting enhancement of aspirations for college. This evaluation may be achieved

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[1] Davis, J. A., & Borders-Patterson, A. Black students in predominantly white North Carolina colleges and universities. Research Report #2. New York: College Entrance Examination Board, 1973.

by noting the substance of the students' report and by comparing responses of those in precollege programs to those not in such programs. A secondary purpose was to predict which preparatory programs or motivational forces would be most effective if recruitment of disadvantaged students is further enlarged.

3. Student's perception of the institution and its academic, personal, social, and economic demands--These questions will be used for rather direct assessment of the way the target group of students perceive their environment, and the way they feel they were able to respond to its demands. Any frequent themas that indicate areas or classes of difficulties would be of particular interest as would ratings of degree and sources of satisfaction the students experience.

4. Student's knowledge and use of special programs--The student's perception of program strengths and weaknesses; other programs or activities he feels would be helpful. The institutional questionnaire will establish the special programmatic resources that exist, while questions in this section will be used to test student knowledge of those resources, their use of and reaction to the resources, and suggestions of improvements students felt were needed.

5. Student perception of nature and opportunity for social life on campuses for himself and others--Several recent studies suggest that there may be values and behavior gulfs between disadvantaged students and the prevailing campus culture, and that the smaller numbers of peers for choice as friends pose special problems in establishing a satisfactory social life. The questions in this section will explore this issue further and will be used in contingency analyses to determine relationships to other kinds of satisfactions that social life is suspected to moderate.

6. Student involvement in ethnic unity groups, and the nature and probable impact of such groups on him--Ethnic unity groups (frequently apparently quite vigorous and active) are a phenomenon of the introduction of new subcultures into the climates that prevail on many campuses. There is no hard evidence to indicate whether the groups facilitate or hamper academic goals or personal satisfaction. These items will be used to sample the extent of participation in such groups and tentatively, by comparison of responses of "actives" and "nonactives" to other questions, to identify the meaning or implications of active involvement.

7. Student perception of general problems and concerns--The essential purpose of these questions is to inventory and assess student perceptions of problems, generalize about the effectiveness of programs designed to ease those problems, or to suggest new programmatic elements that would seem worth adding. Where problems seem characteristic of a particular institution rather than characteristic of all institutions without a program designed to meet that class of problem, an interaction between program and school would be suggested.

8. Student's occupational and educational aspirations--One important goal of the Special Services Programs is to encourage disadvantaged students to continue in graduate study. One important criterion of program impact is student intent to continue in the general college program until he completes it, or intent to continue into graduate study. Questions in this area will be used to test impact of programs in these regards by looking for relationships between institutional differences in student response and institutional or program aspects (given interinstitutional variability).

9. Student's perception of impact of college on his personal development, how he feels he has changed as a result of his college experience--Questions in this area represent another attempt to get at impact of colleges and special programs on the target population of students.

10. Personal data--Basic biographical characteristics (age, sex, minority group, and so forth) will be used to establish categories for intra-group comparisons. These items, in the same format as that provided on the student questionnaire, will be used as "sort" categories to classify important subgroups of students for comparative analysis, and to permit matching of interview data for these subgroups with questionnaire data for similar subgroups. The latter use is particularly important as it is reasonable to assume that some of the subgroups may be less accessible to questionnaire study than others; thus, the interview may be used as some evidence of validity of the questionnaire data for a range of respondents.

The questions used to obtain these kinds of information were pretested and revised by project staff in interview situations with nine minority students from three institutions with Special Services Programs. The final form as used in the study, together with a summary of instructions provided student interviewers, is shown in Appendix A.

4. Procedures for and Conduct of All-institution Census

Questionnaire mailing: On October 28, 1971, following limited pretesting and OMB review and approval, the census form was mailed to the presidents of 2,991 United States and territorial institutions of higher education serving undergraduates. This population of institutions was determined by the merging of institutions (including separately their branch campuses) listed in the 1970-71 edition of the Higher Education Directory published by the National Center for Educational Statistics, USOE, and those institutions contained on a continuously updated mailing list maintained by Educational Testing Service and the College Entrance Examination Board. However, those institutions that served no undergraduate students were eliminated (e.g., theological schools offering only post-graduate courses, schools of medicine offering no courses for undergraduates in allied health fields, and so forth). A letter (see Appendix A), signed by the Acting Associate Commissioner of Higher Education, USOE, advising of the study and seeking cooperation was sent to the presidents of the institutions along with the census form.

Institutions were asked to return the form by November 30, 1971, with the final cut-off date set for December 15, 1971. By December 9, however, only 1,123 institutions, 37 percent, had returned the survey. Indeed, the time of year and the minimum time allotted (less than four weeks allowing for mail delays) posed real problems for many institutions. Follow-up efforts were therefore initiated, and the cut-off date was extended to January 15, 1972.

Follow-up efforts with nonresponding institutions: A follow-up letter was mailed to presidents of the 1,868 nonresponding schools on December 10, 1971. A copy of this letter is included in Appendix A. By December 15, 1971, the first proposed cut-off date, only 1,275 or 42.5% of the census forms had been returned. The return rate on January 15 was 52.4% or 1,572 returned forms. By this time it had become obvious that return would be considerably less than desired and further follow-up efforts were made.

To determine the biases of the responding portion of the population of institutions, an intensive follow-up by mailgram was initiated on January 20, 1972, to 200 selected nonresponding institutions. A copy of this mailgram is included in Appendix A. The mailgram requested that a representative of the president of the institution telephone Educational Testing Service to supply the information requested in the census form. The institutions selected for this mailgram follow-up included all nonresponding schools participating in USOE-funded Special Services for Disadvantaged Students (N = 101) and a random sample of 99 additional nonresponding institutions. Only 22 of the 200 institutions responded to the mailgram within a ten day period.

An attempt was then made to contact the presidents of the remaining institutions directly by telephone. For the institutions responding to the mailgram as well as those institutions which could be reached by ETS-initiated telephoning, some data in the census form were systematically collected by telephone interview. Additionally all institutions so contacted were requested to complete and return the full census form at an early date. This venture, while obviously expensive in terms of both personnel time and telephone time, was considerably less than successful as a form of follow-up data collection. By February 15, vigorous efforts to contact the institutions and to get the requested information still had not been successful for 23 of the 101 SSDS institutions, though ultimately all but 7 were reached. Also, by August 15, 1972, only 34 of the 101 SSDS participating institutions, which were sent mailgrams and had been reached by telephone in all but 7 instances, had returned a completed census form. Research team members attempting to conduct such telephone interviews were frequently transferred from extension to extension in an effort to locate an appropriate official having sufficient information available with which to answer the telephone interview questions. Moreover, research team members encountered numerous professions of good intent and promises to call back which never materialized.[2] As a result of these telephone surveys, however, some meaningful data were collected, which was subsequently used to test certain biases which may have existed in the sample of institutions that ultimately returned census forms.

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[2] These difficulties virtually disappeared when an ETS staff member was later placed in Washington, to make calls "from USOE."

A final cut-off date of March 30, 1972, was established. As of that date, 1,766 or 59% of the 2,991 institutions had returned census forms. The report provided in the next chapter is based on this group of institutions.

Encoding of data: Some data for all 2,991 institutions in the population to which the census forms were mailed, as well as all determinable data from returned census forms, was encoded and transferred to computer cards. The number of computer cards per institution varied. Card 1, containing general information on the institution from routine data of record as well as additional data from the census, where available, was prepared for all 2,991 institutions. For those institutions responding to the census with at least a partially completed census form, two additional cards were prepared--the second card containing more general institutional information, the third containing collapsed data relative to all, if any, special programs existing at the institution. Further, for those institutions listing one or more special programs for disadvantaged students, one card for each special program listed was prepared and contained program specific information.

From the card layout, it can be seen that the encoding of the census responses was quite straightforward. In some instances, however, minor transformations were applied to the data (e.g., derived ratios and a scaling of the extent of selectivity). Few problems, therefore, developed in the encoding. A 10% sample of keypunched data was examined for error, which was found to be within reasonable limits. However, to insure greater accuracy, several passes of the entire data set were made to clean up obviously discrepant codes.

A data tape, in card image format, has been provided to USOE-Office of Planning, Budgeting, and Evaluation. All specific institution identity information was removed from the data contained on that tape.

Report of analyses of the All-institution Census data is given as Chapter 4 in this report.

5. The Sampling Plans

Enumeration of the several samplings: The design of the study required that five basic samplings be conducted. The first sampling involved the selection of 120 U. S. institutions of post-secondary education, each to provide responses to the institutional questionnaire. Previous reference has been made to a sample of 100 institutions requested by the RFP. That number was increased to 120, to accommodate the sampling strata employed, and to guard against shrinkage through incomplete data. The second sampling involves the selection of 60 of these 120 institutions for addition of the student interviews. The third sampling established a subset of 30 of the 120 institutions for visitation.

The fourth and fifth samplings involved the selection of students within the 60 selected institutions of the second sample. The fourth sampling identified from 80 to 120 freshmen and sophomores for administration of the student questionnaires. The fifth sampling involved the selection of from 15 to 25 students from the disadvantaged portion of students in the fourth sampling to participate in the in-depth interviews.

Sampling I and II: Because the investigation involved sequentially dependent sampling, the population from which the sample of 120 institutions was drawn was defined as those institutions which had returned the AIC by January 15. The response rate for the AIC on January 15 was 52.4%, or 1,572 institutions. Those institutions returning forms but providing no information thereon (N = 268) were excluded. (Several forms were returned with various notations, e.g., institution closed or closing or no disadvantaged students and no other information provided.) This population was augmented by the 200 institutions from which classification information had been sought through telephone contact. However, one further restriction was imposed on this base population and those institutions having fewer than 150 disadvantaged freshmen and sophomores (N = 163) were deleted from the list. The ultimate population from which the 120 institutions were drawn consisted of 1,341 institutions.

It was predetermined that fifty of the sample of 120 institutions would have concurrent SSDS programs, and could therefore be expected to respond. For the remaining 70 institutions, a backup sample of 70 additional institutions was drawn, since it was expected that some schools in the prime sample would refuse to participate. Each school in the backup sample was matched (as well as possible) to a school in the prime sample. Where a school in the prime sample refused to participate in the study, its matched pair counterpart in the backup sample was contacted to take its place. Sixty of the 120 institutions in the sample were to be identified for the purpose of participation in conducting the in-depth student interviews. These two sets of 60 institutions each are referred to as subsamples S1 and S2. The backup subsamples are referred to as $S1^1$ and $S2^1$.

The sampling of institutions was, most precisely, a constrained random sampling. The major facets of constraint, the levels of these facets, and the number of institutions at each level of each facet are listed in Table 3-1, both for the total sample and for S1 and S2. The classification of institutions as to facet levels was based primarily on responses from the AIC. A complete crossing of these facets (to provide the framework for a stratified sampling design) would be relatively meaningless, since such a design would produce considerably more cells than the sample of institutions could fill. For this reason, institutions were selected only in terms of the marginal distributions of the facets as opposed to a joint distribution of crossed facets. As will be noted below, the two subsamples S1 and S2 were matched in terms of their marginal facet level frequencies. Where complete matching of S1 and S2 on level frequencies of all facets proved impossible, then allowance was made for lack of complete match on the 'least important' facet, the 'next least important' facet, and so forth, as required for completion of sampling. The order of perceived importance of the constraining facets is reflected in their order of presentation in Table 3-1.

Each non-SSDS institution in subsample S1 (or S2) was paired with an institution in subsample $S1^1$ (or $S2^1$). This pairing of the alternate

Table 3-1

Characteristics of the Study Sample, in Terms of Sampling Facets

	NUMBERS OF INSTITUTIONS		
FACET	Interview (Sample S-1)	No Interview (Sample S-2)	Total Sample
SSDS PARTICIPATION:			
Participating now	23	24	47
Dropped from SSDS after first year	3	2	5
Applied (was not funded) for SSDS	17	18	35
Never applied for SSDS	17	16	33
INSTITUTION TYPE:			
Public predominantly black institution	6	6	12
Private predominantly black institution	6	6	12
Public traditionally white selective inst.	8	5	13
Public traditionally white non-selective inst.	15	17	32
Private traditionally white selective inst.	6	5	11
Private traditionally white non-selective inst.	5	9	14
Community college or other 2-year institution	14	12	26
PROGRAM SUCCESS:			
Successful	12	11	23
Not successful	7	7	14
Other (nondescript)	41	42	83
SOURCE OF PROGRAM SUPPORT:			
Some programs funded completely by non-federal funds	29	30	59
Other (including schools with no programs)	21	21	42
Not classified	10	9	19
RESIDENTIALITY:			
50% or more of students live on campus	24	22	46
Less than 50% of students live on campus	36	38	74
USOE REGION:			
1	3	2	5
2	8	4	12
3	7	4	11
4	12	13	25
5	6	9	15
6	8	9	17
7	3	3	6
8	3	3	6
9	7	10	17
10	3	3	6
HISTORY OF RACIAL UNREST:			
Relative harmony	4	4	8
Confrontation or tension	6	5	11
Other	50	51	101

subsample institutions with the prime subsample institution was on the basis of facet level on all facets. The method of selection of S1' and S2', therefore, was a matching, institution by institution on all levels of all facets, with the institutions previously selected for S1 and S2. Where perfect matching was not possible, allowances were made for lack of complete match on the 'least important' facet, etc., as previously described. Where an institution in one of the prime subsamples and that institution's paired alternative in the respective backup subsamples both refused to participate, the best possible match of all schools remaining in the backup subsample was used in the final sample institutions.

The sampling technique to be used, while relatively complex, lends itself quite naturally to a simple computerized matching search technique within a list of institutions which has been randomly permuted.

The first facet--that of highest priority--is concerned with "successful" vs. "nonsuccessful" programs. "Expert opinion" was the only readily available source of preliminary classification of success. This was obtained by poll of several groups: (a) Division of Student Assistance staff, (b) reliance on field staff of ETS and the College Board who continuously visit campuses, and (c) the advice and experience of select observers (such as Dr. Ed Gordon). From a poll of thirty-one such people, institutions appearing on at least three lists as successful (but never unsuccessful) or unsuccessful (but never successful) were listed for random selection therefrom.

The other facets were determined by data of record or data from the All-institution Census.

The 120 institutions selected are listed in Appendix B.

The subset of institutions for site visit: Thirty institutions were drawn, from the total sample of 120 institutions, for visitation. The original plan was to select 20 SSDS institutions with highly successful programs, and 10 with unsuccessful programs, according to expert opinion as outlined in the previous section. However, it was agreed that the institutions visited should include some with purportedly model programs that were not receiving federal support. The sample should include colleges enrolling students representing all the various subgroups of disadvantage and those colleges should represent various parts of the country.

Accordingly, the country was divided roughly into East, Central, and Western states, with ten institutions drawn from each. One additional institution with SSDS support was added after the site visits began. This institution originally refused to participate in the total study, but did agree to a site visit. Thus, the sample of 31 institutions (see Appendix B) is not representative of any population of institutions. However, it is hoped that they represent the wide variety of elements and qualities--the extremes--that would be found if a larger number of institutions were visited.

The principal selection criterion was the subjective judgment of successful or nonsuccessful program. Fifteen institutions were drawn that had received a vote of "outstanding" from at least three USOE or ETS staff;

seven institutions selected had received a vote of clearly not outstanding, or had, after initial SSDS funding, been dropped from the program; nine others were drawn from institutions known to have major programmatic efforts involving minority groups which were not represented in the clearly outstanding or not outstanding groups.

There are, of course, many possibilities for bias in making some kinds of generalizations from the data provided by the 31 institutions. For the record, therefore, further description of the sample may be useful.

A total of 23 states were represented among the 31 institutions: California--5; Texas--3; Michigan--2; Ohio--2; and, one each from Arkansas, Connecticut, Florida, Georgia, Illinois, Indiana, Kansas, Louisiana, Minnesota, Mississippi, Missouri, New Jersey, North Carolina, Oregon, Rhode Island, South Dakota, West Virginia, Wisconsin, and Wyoming. As for federal support for Special Services, 17 institutions were currently conducting federally funded Special Services Programs, three had held prior awards but had been dropped from federal funding, and the eleven remaining institutions had significant minority student populations but did not receive federal support for supporting services. As for college type, traditionally white institutions included: main campuses of major state universities--6; branch campuses of major state universities--4; public four-year colleges--5; public two-year colleges--3; private, highly selective liberal arts colleges--4; private, moderately selective or nonselective liberal arts colleges--3; and private university--1. Traditionally black institutions were represented by a large Southern state university--1, a new private experimental black institution--1, and private black liberal arts colleges--3. In terms of "disadvantaged" student populations, institutions enrolling substantial numbers of: Black--27; poor white--15; Chicano--13; Native American--7; Puerto Rican--4; physically handicapped--3; and some other minority, e.g., Cubans, Filipinos, or Orientals--3. Twelve institutions enrolled students from only one category of disadvantaged, 7 two categories, and the remaining 12 enrolled students from three or more different categories.

The samples of students for the Student Questionnaire and the Student Interviews: The samples of students for questionnaire and interview survey were drawn by the institutional representatives, who in turn had been instructed by the ETS research team. (The actual instructions used are reproduced in Appendix A.)

Institutional representatives were requested first to identify, as well as possible, the different subgroups of disadvantaged freshmen and sophomores on their campuses. For purposes of this study, the major subgroups were the poor and the physically handicapped, with the poor broken down into further subgroups by ethnic or racial origin. This gave a total of 7 subgroups, as follows:

1. Physically Handicapped
2. Poor, American Indian
3. Poor, Black
4. Poor, Mexican American
5. Poor, Puerto Rican
6. Poor, White
7. Poor, other ethnic or racial group

A target subgroup was defined to exist on a campus only if there were 25 or more individuals in a given subgroup in the combined freshman and sophomore classes.

The number of target subgroups on a campus determined the size of the sample of disadvantaged students from each school to whom the Student Questionnaire was to be administered. These sample sizes are given in Table 3-2. It should be noted that the table also calls for "Students in General" who are to be given the Student Questionnaire. "Students in General" were to be selected from freshmen and sophomores on campus who were not classified as disadvantaged.

Following the determination of target subgroups, the institutional representatives were asked to assemble lists of freshmen and sophomores enrolled as regular students and classified in one or another of the target groups. Then, several procedures for random selection of the required number of students in each subgroup were provided (the instructions used are provided in Appendix A). Institutional representatives were also requested to draw backup samples to be used as necessary to replace students in the prime sample who might decline to cooperate in the study. Thus, samples of students responding to the Student Questionnaire could range from 80 to 132 in number, including 20 to 25 regular students and 55 to 112 disadvantaged students in each of the 61 participating institutions.

On the basis of information provided by institutional representatives, projection of numbers of subgroups and total numbers of students within subgroups were made. Projected figures are given in Table 3-3. Institutional representatives from the 60 interview sample campuses were instructed to obtain an additional random sample within each disadvantaged subgroup represented on campus. In an attempt to avoid overburdening those campuses whose undergraduate enrollment represented many disadvantaged groups, the number of students to be interviewed in each subgroup was to be determined by the number of subgroups represented on the campus. Thus, as shown in Table 3-4, on the campuses whose students represented only one group, 12 students were randomly selected for in-depth interviews on the campuses enrolling students representing two groups, eight students were interviewed from each group for a total of 16, and so forth.

B. Phase II - Data Collection Procedures

1. The Enlistment of Institutional Participation

In early February 1972, the presidents of the 50 SSDS institutions in the study sample selected and the 70 prime and backup non-SSDS institutions were sent written invitations to participate and to name an institutional representative. No backup sample was prescribed for the SSDS institutions, as previously noted, since their current receipt of federal funds for Special Services Projects carried with it an obligation to respond to duly authorized federal inquiry. Response to the invitations was requested by March 7, 1972.

Telephone followup to the presidents of nonresponding schools was begun March 6, with emphasis on the SSDS institutions and the non-SSDS institutions in the prime sample. By March 18, with aggressive followup, the final sample of 120 institutions were enlisted. Of the fifty SSDS institutions, two vigorously refused to participate (although each of these later provided some data) and one other was unable to achieve a timely decision; these three institutions were replaced with similar institutions, receiving SSDS funds: Of the total group of 120 institutions in the prime sample (the 50 SSDS and 70 non-SSDS), 100 institutions accepted the invitation to participate, 17 declined, and three could give no firm response in time. Also, four non-SSDS schools in the prime sample that had originally reported 150 or more students from families with incomes below $3,000 in a prior federal survey, could not identify as many as 25 disadvantaged students. Thus, a total of 3 SSDS institutions were replaced and 21 non-SSDS institutions were accepted from the backup sample. Two of these non-SSDS subsequently refused to continue in one or another part of the study, following student protest. However, two SSDS institutions refusing initially did later decide to participate in some limited fashion. Thus, a total of 122 schools were contacted and participated to some extent. The final group of institutions is listed in Appendix B.

2. Procedure for Obtaining Student Interviews

It will be recalled from the sampling plan presented in a previous section that the group of 120 institutions represented two matched subsets of 60 institutions each. One of these subsets was designated for interviews.

As institutions responded, institutional representatives were named by the president. The institutional representatives were contacted, beginning March 3, and were given a summary of the study purposes and design, an inventory of their responsibilities, strategies for selecting students for questionnaire, and, in the case of schools in the interview sample, instructions for selecting student interviewers and students to be interviewed.

The procedures for institutional representatives to use in drawing the samples of students have been noted in a preceding section on sampling. Institutional representatives were advised to nominate student interviewers on the basis of the following criteria:

(a) membership (preferably upperclassmen in senior colleges) in the target group(s) of disadvantaged represented on the campus

(b) respect of their peers

(c) genuine concern with student problems and articulate (whatever their views) in expressing these concerns

(d) satisfactory academic standing

(e) financial need

Table 3-2

Numbers of Students to Be Given the Student Questionnaire

Total number of target subgroups on campus	Number of disadvantaged students to be selected	Number of "Students in General" to be selected	Total number of students to be selected
1	55	25	80
2	70	25	95
3	90	25	115
4	100	25	125
5	100	25	125
6	108	20	128
7	112	20	132

Table 3-3

Projections of Anticipated Number of Target Groups and Sample Size for Student Questionnaire[1]

Category of Student	Number of Target Groups	Anticipated Number in Sample
Disadvantaged		
Physically Handicapped	28	799
Poor Black	94	3539
Poor Chicano	32	1044
Poor Native American	21	539
Poor Oriental	8	258
Poor Puerto Rican	11	265
Poor White	68	2256
Other Poor Student	9	160
TOTAL	271	8860
Modal	122	3440
TOTAL	393	12300

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[1] These figures are based on the 122 institutions ultimately participating in the study (see Section B.1, p. 3-16) rather than the 120 institutions in the original sample.

Table 3-4

Number of Students Selected for Interviews

Number of target subgroups interviewed	Number interviewed from each subgroup	Total number selected
1	12	12
2	8	16
3	8	24
4	7	28
5 or more	5	25+

(f) if physically handicapped, ability to travel without unusual aid to the interview training sites, and to contact and interview other physically handicapped on their own campus.

Interviewers were selected from the students nominated for this role by the institutional representative. When more students than needed were nominated, selection was made either at random, or to maintain an approximate balance of males and females. Interviewers selected always represented the particular subgroup (poor white, Black, physically handicapped, and so forth) they were to interview.

3. Procedures for Obtaining the Student Questionnaire Data

Shipment of the Student Questionnaires to the institutional representatives was made between March 25 and March 30, 1972 (Table 3-5). Each questionnaire was accompanied by a gummed seal envelope, to permit the student responding to seal his questionnaire for return (no name was required on the questionnaire; thus, the student identity was not required nor requested). Institutional representatives were also provided with suggestions for a variety of alternate strategies to secure the cooperation of students (see Appendix A).

By July, letter, mailgram, and telephone followup of nonresponding institutions or of institutions returning less than half their quota of questionnaires, had resulted in receipt of 8,213 usable student questionnaires from 113 institutions. Of the 122 institutions contacted, one declined at the outset and two upon student protest not to administer the questionnaire. Thus, of the 119 schools remaining, 95 percent responded. The sampling quotas for the 119 schools totaled 11,538 respondents; the 8,213 returned questionnaires represented 71 percent of that quota.

4. Procedures for Obtaining Institutional Questionnaire Data

The Institutional Questionnaires, one copy of Part I, the General Questionnaire, and copies of Parts II and III for each program or activity director, together with instructions for distributing these forms to the appropriate campus respondents were mailed to the institutional representatives between April 14 and 19, 1972. The deadline for return was prescribed as June 1.

Again, as in other instances, the time given for completion of the questionnaires proved to be unrealistic. By June 15, Part I questionnaires had been received from only 57 institutions; 207 Part II questionnaires had been received from 82 institutions; and 139 Part III questionnaires had been received from 59 institutions. Followup procedures had started with a letter of inquiry to all institutional representatives on May 30.

Part I of the Institutional Questionnaire required the identification of programs for disadvantaged students (hence, the completion of one or more Part II questionnaires) and of regular programs used by disadvantaged students. The programs identified in Part I were checked against the Part II questionnaires received and a second followup listing precise missing data was

Table 3-5

Distribution of Numbers of Student Questionnaires Returned, by Institutions

Number of Student Questionnaires Returned	Number of Institutions	Percent of Total Number Institutions
0	8	7
1-25	3	2
26-50	20	17
51-75	33	27
76-100	44	36
101-125	13	11
TOTAL	121	100%

mailed to the institutional representatives on July 5. By July 15, complete sets of institutional questionnaires had been received from only 34 of the institutions. However, the tally then showed that 76 institutions had submitted Part I, 90 institutions had submitted a total of 241 Part II's, and 55 institutions had submitted a total of 114 Part III's.

By mid-August, only 54 of the institutions appeared to have returned all appropriate institutional questionnaires. A third followup, this time signed by the Acting Associate Commissioner of Higher Education, USOE, was mailed to the Presidents (not the institutional representatives as before) on August 22. Institutions with federally funded programs for disadvantaged students were reminded of their obligation.

The final followup for the 39 remaining delinquent institutions was by telephone. An ETS staff member working out of the USOE offices in Washington made calls to each President on September 26-27, 1972. Contact was made with all but five institutions. By November 15, 105 institutions had returned Part I questionnaires, 98 institutions had returned a total of 266 Part II questionnaires, and 59 institutions had returned a total of 121 Part III questionnaires.

5. Procedures for the Institutional Site Visits

To perfect plans for the site visits, six institutions were visited: three by a co-director of the study and either the USOE Project Officer or a senior research staff member; three by other senior project staff. These preliminary visits took place in January and February 1972, and were concerned with establishing target groups and individuals for interviews, and with structuring priorities for observation and standard questions. The attempt to use a standard set of questions was abandoned, however, because the situation from campus to campus or respondent to respondent varied so greatly as to preclude a standard format. Instead, a general set of purposes for the site visits was formulated. These six initial visits confirmed the need to select site visitors from among these persons extremely knowledgeable in the areas of higher education and minority problems.

The purpose of the site visits was three-fold:

a. to provide in-depth, corroborative empirical support for the diversity of perceptions and data revealed in the institutional survey, the student survey questionnaire, and the student interview;

b. to compare the institutional personnel and student perceptions of the university environment as it shapes the behavior and expectations of disadvantaged students; and,

c. to examine critically the operation (and perceptions of that operation) of the programs for disadvantaged students and the extent to which it appeared to be an integral part of the university.

Site visits to colleges and universities over the nation began on May 8 and were completed on June 6, 1972. In this one-month period 31 institutions were visited by a total of 30 ETS research staff and educational consultants representing various racial or ethnic backgrounds: Blacks--15, Whites--9, Chicanos--4, Native American--1, and Asian--1. On each site visit team, attempts were made to include a visitor of the same ethnic background as that of each principal target group served by the institution. The length of the visits varied as a function of the size and complexity of the campus. The visits averaged two days in length, most involving four man-days, but ranging from two man-days to a maximum of eight man-days.

The site visit teams were organized under the direction of Dr. James Brewer, who served as a full-time consultant to ETS during the visits and later analyses of data therefrom. The country was divided into three regions--East, Midwest, and West--and team leaders were designated for each region. Dr. Brewer served as area leader for the ten Eastern institutions; Dr. Jayjia Hsia, Research Psychologist in the ETS Midwestern Office served as area leader for the eleven colleges in the Midwest section, and Dr. Jonathan Warren, Research Psychologist, and Mrs. Santelia Johnson, Senior Professional Assistant for Advisory Services (both of the ETS-Berkeley Office) shared this responsibility for the ten institutions in the Western section. These area leaders, generally knowledgeable about the institutions in their region, had responsibility for the selection of specific site visitors, their instruction, and monitoring of their reports.

In addition to the team leaders, the site visitors included the Project Director and seven members of the evaluation team for other aspects of the study, ETS staff members such as Dr. Kenneth Wilson, Director of the College Research Center, Mr. Brad Williams, ETS Associate Personnel Director, and Dr. Virgil O'Connor, Director of the ETS Evanston office, professional staff members of the College Entrance Examination Board, and Mrs. Tillie Walker, Director of the Native American Scholarship Fund.

Such materials as catalogs and pertinent information generated from earlier phases of this study (e.g., Institutional Questionnaires) were sent to consultants prior to site visits. The institutional represenative served as host and facilitator, arranging appointments for the consultants with administrators, faculty members, and students.

In almost every instance, the persons interviewed on each campus included the President; the institutional representative for the study; the Deans of faculty, admissions, and students; the Director(s) of special programs for disadvantaged students and counselors in special programs; the Director(s) of guidance, counseling, placement, and financial aid; the Director(s) of ethnic studies programs; the editor of the college newspaper; the head of student government; heads of ethnic or minority student groups; and, minority students enrolled in special and regular programs offered by the institution. On most campuses students in Special Services Programs were available for interviews. However, at some institutions, the school year had just been completed and either there were few freshmen and sophomores on campus or those students who were available had completed their stay in the Special Services Program. It was therefore not possible at every institution to talk with students currently in the program.

The visitation teams were instructed to focus on the following institutional components:

a. The institution--characteristics and local perceptions of the institution as a sympathetic or hostile environment for disadvantaged students.

b. The disadvantaged student--characteristics and perceptions of his or her campus roles.

c. The program for disadvantaged students--characteristics and local perceptions, success criteria, and impressions.

Site visitors were also urged to seek answers to such questions as:

> What is the general educational and social climate on the campus and for disadvantaged students in particular? What kinds of programs and services are provided for disadvantaged students? What is the status of the program director(s)? Does he have specific objectives? What is his real status, and his power base, on campus? What evidence is there that the program is functioning well or not well? What is the nature and competence of his staff? How effectively has he enlisted the support of other faculty and staff at the institution? What are the attitudes of administrative officials toward disadvantaged students? Are the special programs valued in their own right, or are they attractive only as a source of additional funds? Who controls the budget for special programs and what other evidence of financial commitment to special programs may be found? How well are the disadvantaged students integrated into general campus life?

Each site visitor was left to his own devices in framing a formal report of the visit. Written reports providing detailed comment on factors perceived to be significant were required. These reports were studied by the area leaders who sometimes requested amplification before forwarding them to the Project Director for analysis and summary.

6. The Training and Debriefing of the Student Interviewers

Beginning in early March 1972 the 117 student interviewers identified by the 60 institutional representatives were invited to attend one of three two-day instruction and training sessions. The first training session was held in Chicago on March 20-21 for 35 students from midwestern and northeastern institutions. A second training session was held in San Francisco on March 23-24 for 34 students from western institutions, and a third session, for 48 students from southeastern institutions was held in Atlanta on March 28-29. Six staff members and consultants conducted the Chicago training session; five staff members and consultants participated in the San Francisco session; and, seven staff members and consultants, together with the USOE project officer, participated in the Atlanta session. Of the students invited, all but one attended a training session. One institution sent an additional student at its own expense.

At the training sessions, some considerable time was spent introducing the students to the purposes of the study and soliciting their comments and suggestions. The trainees were introduced to the most basic principles of interviewing and role-playing situations were used to provide practice in conducting interviews with the structured format. Formal training in interviewing techniques, was, of course, rather minimal. Emphasis in the training sessions was placed on several basic principles or procedures such as avoidance of leading questions, the problem of attaining rapport, selecting important information for recording and reporting, and reviewing notes immediately after each interview to be sure they reflected what had actually happened.

The Chicago and Atlanta meetings proceeded smoothly, with most students entering actively and enthusiastically into the proceedings. The students were serious, thoughtful, and highly verbal. They were obviously very much concerned with the issues and positive in their approach to the task ahead. Their concern for the study was attested to by a number of positive suggestions for additional questions or changes in the structure of the interview, many of which were accepted.

In the San Francisco training session, activities progressed smoothly the first day, although questions from several student leaders were sharp and more potentially hostile than in the other two instances. This was attributed at the time to arrogant treatment of the group by the hotel staff. It was later learned that some of the students--about four Native Americans and four Chicanos--spent the first evening, when students had free time, "caucusing" in their rooms. At least five uninvited Indian adults also joined the students in their private caucuses, and one, a prominent official in a California college, appeared with the students at the meetings the next day. This official acted as spokesman for the student group and made various and sundry inquiries about the purposes of the study and the procedures. He also noted that a number of the students were seriously concerned about the effort. This, and subsequent student caucuses, occupied the greater portion of the second day, and culminated in the presentation of one set of requests from the Chicano contingent and another set from the Native American contingent. The general tenor of the Chicano petition was that inasmuch as the interview outline had not been developed by Chicano students, it could neither be fair nor appropriate; it was also demanded that the student representatives in San Francisco "should be funded to take on all phases of this ETS study on Special Services Programs from the present until the completion of the final draft and the presentation to the USOE." The Indian statement noted the different cultural and religious values of the Indian people, the fact that Indian people have not been involved in programs that affect their lives, that there are important distinctions among subgroups of Indians, and that Indians have treaties and other rights that are different from those of other disadvantaged people; therefore, it was requested that Indians share also in a reformulation of the interview outline and any other instrumentation to be used in the study. The adult who had become the advisor and advocate for the student group made frequent threats of bringing a law suit against ETS to stop the study if the students' requests were not met.

An SSDS Program Officer attending the training session from the San Francisco Regional Office was exceptionally helpful in dealing with the situation. He reported to the students that their concerns would be given careful consideration. However, he pointed out that compliance with the students' requests would require lengthy redevelopment work on the interview guide and that the revised instrument would additionally be subject to typical time-consuming USOE and OMB review procedures. As a result, the study would be delayed for a year. Since such a delay was not feasible under the existing contract, refusal to participate in the study using the present interview guide would effectively exclude West Coast institutions from the study.

The last several hours of the scheduled training sessions were employed for training, although the protest and intervention of the adults took up much time, and training was not as thorough as in the Chicago and Atlanta sessions.

Following the San Francisco meeting it became known that telephone calls were made by several students in the active group of protestors urging other students at the training session to boycott the study. Following receipt of further information from the research team, students were given the option of continuing with the study or withdrawing from it. All students attending the San Francisco session were contacted by mail or telephone following the meeting. At this time, the safeguards built into the study were reiterated and it was made clear that no interviewer or interviewee would be coerced into participation, that each student interviewer would be free to ask only those questions considered relevant, that it would be the responsibility of each interviewer to augment and improve the questions; that the interviewees' right to privacy was of utmost importance; and, beyond the planned debriefing sessions, that there would be substantial student input to the phase of the report dealing with the in-depth interviews.

By May 1, 21 of the 34 students had opted to proceed with the interviews. Letters were also written to the Program Directors on the affected campuses, noting the study safeguards, and stressing the urgency of moving to obtain data on which subsequent funding patterns could be based. Ultimately, 16 of the 21 students actually conducted interviews, as did three others who had originally declined the task. The quality of the reports was not discrepant from the interview reports of the other two groups trained in Chicago and Atlanta.

Upon return to their respective campuses, and upon final agreement to participate, all student interviewers were asked to obtain the names of students to be interviewed from their Institutional Representative. It was then left to the interviewer to contact the prospective interviewee, obtain his consent, and to arrange for a convenient time and place to conduct the interview. Institutional Representatives were asked to select alternates to cover situations where the prime student was unwilling to be interviewed or could not be contacted. Interviewers were, of course, provided with all necessary background and interview materials, including postpaid envelopes for returning completed interview schedules directly to ETS.

Thus, a total of 117 student interviewers were selected, trained, and assigned to a total of 988 interviewees. Although not every interviewer fulfilled the assigned quota of interviews, and although there were some interviewers who decided against participating or who were unable to complete any interviews, a total of 752 interviews (a return of 76%) were conducted by 98 interviewers. Moreover, some interviews were completed at each of the 60 institutions. A detailed description of the breakdown of these groups by minority group membership is provided in Chapter 7 of this report.

The interviews were conducted in April and May 1972. On May 13, 83 student interviewers from the East and Midwest had returned 598 (or 80%) of their quota of 736 assigned interviews, and were invited to a one-day debriefing session which was held in Washington, D. C. Sixty student interviewers were able to attend.

By May 15, 20 (of the original 34) interviewers in the West Coast group, because of a later start and because of attrition of interviewers, had completed a total of 53 (or 31%) of the West Coast quota of 173 assigned interviews. A debriefing session for this group was delayed until June 5-6, when 18 interviewers from the West Coast institutions, plus three who had been unable to attend the Washington debriefing, met with project staff in Albuquerque.

The emphasis in the debriefing sessions was on free discussion among the students of (1) what had been reported to them, and (2) their own opinions and judgments. For part of the time, students and project staff or consultants were divided into their respective minority groups to discuss what the interviewers had learned from their freshmen and sophomore peers and to report their own experiences and perceptions as disadvantaged students. Then, they were reconvened as a total group for presentation of subgroup reports and further discussion. All reporting sessions were electronically recorded, and typescripts made for later detailed study.

In view of the report of earlier difficulties with the West Coast group, it must be reported that their debriefing session went extremely well. Discussion was animated; observations appeared keen; legitimate concerns were high; and recommendations were both creative and realistic. If weeding out had occurred from the protests, those students genuinely concerned and articulate were not affected.

7. Summary of Numbers of Institutions Participating

Table 3-6 provides a summary of institutional response to the various data gathering activities.

Table 3-6

Summary of Numbers of Participating Institutions by Type of Data Requested and Provided

Data		Number of Institutions Invited to Participate	Number Responding
Student Interviews		60	60
Student Questionnaires		121	113
Institutional Questionnaire,	Part 1	122	106
	Part 2	122	98
	Part 3	122	59
Site Visits		31	31

Of the original 122 institutions, only two--whose institutional representatives apparently never took any action, and whose presidents did not follow up--failed to participate in any way. All sixty of the institutions designated for interviews did have at least one student contributing interviews. Of the 121 institutions sent student questionnaires, no returns were received from the two instances noted, plus three other instances where the institutional representative ignored requests and failed to respond to letter, mailgram, or phone, and two instances where institutional representatives were fearful of student protest.

C. The Presentation of the Evaluation Study Results

The remainder of this report is devoted to the presentation and discussion of the data collected, and to recommendations drawn therefrom. It should be noted at this point that the various strategies should be expected to produce a variety of both "hard" and "soft" data. In the latter category are the site visits and the student interviews, where perceptions of the participants--research team members, consultants, and student interviewers, as well as the respondents--provided judgments and opinions. The open-end responses to the institutional questionnaires should also be considered in this category. Moreover, much of the objective data requested by the institutional questionnaires were either suspect, provided as estimates, or not provided at all, thereby limiting the conclusions that may be drawn. The student questionnaire study was more empirical in design and in types of data requested. The All-institution Census dealt primarily with basic data of record on the institutions and their programs, and, for descriptive overview and summation, is relatively straightforward. All aspects of the study are, of course, limited by the structure of the sampling design, and by failures to achieve a 100 percent response from institutional and individual respondents (care is taken to specify these limitations in the presentations that follow, and to speculate on their implications).

Chapter 4 presents a summary of the most important descriptive findings from the All-institution Census. The Census, of course, was concerned with the frequency and distribution of disadvantaged students among the nation's higher education institutions, the nature and extent of supportive service programs (with particular attention to federally supported Special Service Programs versus other programs), and the attitude toward maintaining these programs. A detailed report of the findings from the Census is presented separately as an ETS project report.[3]

Chapter 5 presents the findings from data provided by 100 respondents to the general Institutional Questionnaire (Part I) distributed to the 122 institutions in the study sample. Data solicited by this questionnaire included: total full-time equivalent enrollment and enrollment data by ethnic group for the five year period culminating in 1971-72; similar data on faculty, by rank and ethnic composition; any pre-admissions test data on students over this period; an inventory of support services provided by the institution; and, a report of the prevailing climate of opinion at the institution concerning the disadvantaged and the support programs they should find beneficial.

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[3] Burkheimer, G. J., & Davis, J. A. A census of special support programs for "disadvantaged" students in American institutions of higher education, 1971-72. PR-73-16. Princeton, N. J.: Educational Testing Service, 1973.

Chapter 6 presents, in considerable detail, the analyses conducted with the Student Questionnaire data. This questionnaire solicited some 580 bits of data about the personal characteristics of the student respondent, his progress and achievement in high school and college, his perception of availability and his use of special support services, his attitudes toward various aspects of college, and his plans and aspirations for the future. On each campus in the sample of 122 institutions, attempts were made to obtain samples of freshman and sophomore disadvantaged students and of "modal" or nondisadvantaged students. The questionnaire provided, of course, the basis for the student oriented criteria of effectiveness of program impact and/or institutional treatment.

Chapter 7 presents a series of reports, by ethnic group or category of disadvantage, of the impressions gained and perceptions shared in the student-conducted interviews of disadvantaged students. This research strategy, it should be recalled, was an attempt to add color and depth to the data gleaned from the Student Questionnaire, and, in some senses, to validate it. Also, it draws heavily on the comments made by the students interviewed, and, from the debriefing sessions, by the students who conducted the interviews. Conscientious attempts were made to involve some of the student interviewers in the actual writing of this chapter, and in reviewing and amending various drafts of the report; it thus presents a picture from a very different basis than that employed in the more empirical phases of the study.

Chapter 8 summarizes the perceptions and insights gained in the site visits to 31 institutions in the sample. Rather than present these as 31 case studies, an attempt has been made to identify the associated forces that appear significant in explaining programs that appear to enjoy institutional acceptance and to be functioning effectively (as attested by staff and student involvement and attitudes toward them). As a preview to this report, it should be noted that it was not possible to define "good" or "bad" programs; rather, the site visits were more prolific in revealing good or bad features of the programs, and the institutional factors associated with their comfortable and apparently effective existence at the host institutions. Because the recommendations drawn from this basis (and from the vantage point of the multiplicity of observers and participants interviewed) are more broadly based and drawn from a different kind of authority than that employed in many other phases of the study, they are reported separately at the end of the chapter.

Chapter 9 is drawn from the Institutional Questionnaires, Part II, which was directed to program directors of special support services programs (whether federally funded or not) that were specifically designed for disadvantaged students. An attempt has been made to present, as faithfully as possible, how the program directors perceive the environment in which their programs operate, their perceptions of students' needs, their strategies for satisfying these needs, and areas of program success and failure.

Chapter 10 presents a summary of the findings that the research team (the consultants, the student and institutional reporters, and the formal reviewers assigned by USOE to read the tentative draft of this report) feel are most significant and instructive. Recommendations drawn from these findings are also presented. It should be noted here that in spite of the variety of research strategies and data collected, it was found difficult to judge unequivocally the fact or extent of impact of this relatively new experiment in higher education; a longer time for the programs to mature, a more sensitive research design (and need for longitudinal studies), better identification and control of interactions, are all needed for definitive answers as to the impact of the programs on the groups they were created to serve. Yet, a number of insights as to conditions associated with effective functioning of the programs are revealed which hopefully may improve their design, operation, monitoring, and progressive revision.

CHAPTER 4

A Census of Programmatic Attention to Disadvantaged Students by U. S. Institutions of Higher Education

Introduction

The first critical question posed by the survey has to do with the following: What is the extent of the disadvantaged undergraduate population in the nation's institutions of higher education in the fall of 1972? In what kinds of institutions do they enroll? What is the varied institutional experience in the proportion who graduate or continue in another institution, or who later enroll in graduate study?

Second: What kinds of programmatic support do the institutions offer these students? What activities or components do these programs embrace? Do programs[1] or program content vary as a function of type of institution? What numbers of students do the programs serve, what is the extent of faculty and staff involvement, and what are the costs? How are these costs supported? What proportion of these costs come from federal sources?

Third: What is the attitude toward continuing these programs? Has optimum size been reached or surpassed? From where do administrative officers feel increased support should be sought?

Finally, with particular regard to institutions with Special Services Programs: What kinds of institutions are supported by the Division of Student Assistance? Are these the institutions with the largest number of disadvantaged? Have inroads been made to the more selective institutions or others where disadvantaged students traditionally are not represented to any significant extent?

The data provided by the census are voluminous; a complete report, together with selected tabulations and cross tabulations, is provided separately.[2] The major findings, however, may be summarized quite briefly.

A. Biases in the Responding Sample of Institutions

As noted earlier, 2,991 institutions were identified and their chief administrative officers received a four-page questionnaire in late October 1971 that requested information on: total current expenditures for fiscal year ending in 1971; full-time equivalent fall undergraduate enrollment; admissions procedures; brief descriptions of special supporting services programs; total expenditures for such special programmatic services for disadvantaged students; and, judgments or estimates of optimal size, new sources of support, proportions of undergraduates within the federal poverty classification, proportions of disadvantaged graduating, and proportions of disadvantaged entering graduate school. As a result of extensive follow-up, 1,766 (or 59%) of the 2,991 institutions had responded to the survey by the end of the first quarter of 1972 (five months after the original mailing).

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[1] For definition of "program," see Appendix A, p. A-1. A "program" may consist of a single component (e.g., counseling) or of several components.

[2] Burkheimer, G. J., & Davis, J. A. A census of special support programs for "disadvantaged" students in American institutions of higher education, 1971-72. PR-73-16. Princeton, N. J.: Educational Testing Service, 1973.

With less than 100% response to a survey, the possibility of biases in the responding portion must be considered. Two procedures were employed to check for biases among respondents: First, responding institutions were compared with nonresponding institutions on certain critical matters of public record: geographic area, participation in federally supported programs for disadvantaged students under the Higher Education Amendments of 1968, institutional control, predominant or traditional race of student body, highest offering, and accreditation. Second, a sample of 200 nonresponding institutions were drawn (which included all (N = 102) nonresponding SSDS institutions, and a random sample of 98 of the remaining nonresponding institutions). An attempt was made to obtain the survey information by telephone from this nonrespondent sample. This attempt was successful only for 46 (45.5%) of the nonresponding SSDS institutions and for 88 (89%) of the sample of nonresponding non-SSDS institutions.

Regarding information of public record, responding vs. nonresponding institutions did not differ as a function of geographic region, institutional control (public, private, church-related), or predominant race of student body. On the other hand, institutions with federal support for disadvantaged student service programs were more likely to respond than were those without federal support, as might have been expected. Those institutions without accreditation problems also had a higher response rate. Junior or community colleges were also less likely to respond than were other institutions.

Regarding the telephone follow-up, tests for bias in the responding sample are tenuous due to the lack of response to the follow-up of nonrespondents (particularly the "hard core" nonrespondents among those institutions having federally funded programs). The follow-up results did suggest, however, that the nonrespondent sample did not differ regarding estimates of proportions of disadvantaged on campus or proportion of disadvantaged who continue in graduate study. However, among institutions with federally supported programs, those with lower proportions of disadvantaged expected to graduate were less likely to respond than those with higher proportions expected to graduate.

Considering the above, one word of caution is needed: to extend the findings of this study to all institutions of higher education would probably overestimate the amount of programmatic activity offered for disadvantaged and under-represent both institutions providing two-year academic or vocational programs and those with accreditation problems.

B. The Numbers and Deployment into Higher Education of Disadvantaged Students

How many "disadvantaged" students enter college, and where do they go? For the institutions responding, roughly one-third estimated from 0% to 5% of the undergraduate student body to be disadvantaged, another one-third from 6% to 15%, and another one-third more than 16%. Only about one in five institutions estimated more than 25% of their undergraduate population to be disadvantaged. An estimate from the reported frequencies indicates that 14%[3] of the total undergraduate population are believed to come from families within the poverty classification.

Institutional and regional differences in numbers of disadvantaged in college. A number of factors were found to be associated with the numbers of disadvantaged in college. The degree to which the institution employs selective admissions criteria is, of course, a major factor. Over half of the institutions that require entrants to rank in the top quarter of their high school class and to score equally high on scholastic aptitude tests, report fewer than 5% disadvantaged. More disadvantaged students are reported in publicly-supported institutions than in private institutions. This may, of course, result as an aspect both of cost and of the fact that private institutions tend to be relatively selective. Private church-related institutions report more disadvantaged undergraduates than private non-church-related institutions. Two-year institutions, and the larger universities offering graduate degrees, report larger proportions of disadvantaged than do four-year colleges. The predominant ethnicity of the student body is highly related to enrollment of disadvantaged. Almost 60% of the nonwhite institutions report more than half of their undergraduate population within the poverty classification, while only 3% of the white institutions report this many poor among their student bodies. Nonaccredited institutions, representing 16% of those responding, tend to report higher proportions of disadvantaged, as do institutions with more than half of their student body living off campus.

There also appear to be sharp differences by geographic region. On the basis of regions used by USOE, institutions in regions 4 and 6, the Southeast and Southwest, respectively, tend to report larger proportions of disadvantaged, while region 1, the New England states, have relatively few institutions reporting large numbers of disadvantaged. This would seem to be a function of area per capita income and of the traditional kinds of institutions indigenous to the area, i.e., the traditionally black institution in the Southeast. The implications of this finding for federal funding are, of course, both complex and significant. One might expect a direct relationship between the proportion of poverty young people of college age within a region and the support services funds awarded in that region; yet some regions have more institutions already and traditionally providing higher education opportunity for the disadvantaged.

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[3] This estimate is probably high. Data from the Current Population Reports Series of the U.S. Bureau of the Census, as reported in Table 2-1, page 2-13, identifies only 8.7% of the 1971-72 college enrollment as coming from families with less than $5,000 annual income. Furthermore, the 1970 Census estimates that of the total U.S. population in that year, only.

Institutions with federally-supported service programs for the disadvantaged were found to report, on the average, larger proportions of disadvantaged on campus than those without federally-supported programs. This relationship holds when institutions are grouped according to selectivity of admissions and compared within each category of selectivity. This may reflect the fact that federal money tends to be made available to institutions evidencing a commitment to or a tradition of service for the disadvantaged, or, the infusion of federal funds may indeed have served to increase the proportion of disadvantaged on some campuses. Undoubtedly, both are true to some extent, but longitudinal studies are needed to better judge the impact of federal funds with regard to the latter possible result. A marked trend was noted for the highest proportions of disadvantaged students to be enrolled in institutions that had received funds for Special Services Programs, the next highest proportions in institutions that had applied for funds unsuccessfully, and the lowest proportions at those institutions that had not applied for such funds. In the latter group of institutions, representing two-thirds of all responding institutions, 60% report 10% or less disadvantaged in their student body. Even so, of those institutions granted program funds, almost one-third report 10% or fewer disadvantaged students.

C. Extent and Nature of Special Support Services Offered

What is the extent and nature of the special support services programs offered? Of the responding institutions, 801, or almost half, reported no such programs. Given the biases noted in the responding sample, it is reasonable to state that somewhat less than half, but at least 25%, of the nation's colleges and universities profess to offer support programs expressly for or appropriate for disadvantaged students. Of those institutions with programs, about half offer only one program, and the other half offer from 2 to 8 programs (although one institution listed nineteen different activities). The 901 institutions, 53%, reporting one or more programs provided a total of 2,381 separate programs. These programs tended to be relatively new: the median number of years of program operation was 2.6, and less than three percent of the programs had been in operation for ten years or more. Almost 40% of the programs were "bridge" programs such as Upward Bound, thus directed more toward preparing the student for college than for facilitating his academic adjustment on campus.

Although, in general, it was found that the higher the proportion of disadvantaged on campus, the larger the number of special programs, the relationship is far from perfect. Institutions in USOE regions 8, 9, and 10, the Far Western states, tend to take a multi-program approach as compared with institutions in other parts of the country. Institutions in the Southeastern states, previously noted as having larger disadvantaged college populations, tend to have fewer programs. Larger institutions tend to have more programs, as do open-door institutions as compared with more selective institutions, public institutions (when compared with private institutions), two-year institutions, traditionally nonwhite institutions, or nonresidential institutions. Nonaccredited institutions, though generally serving higher proportions of disadvantaged students than accredited institutions, tend to have fewer programs; over half of the nonaccredited institutions list no programs at all. Institutions receiving aid through the Division of Student Assistance, USOE, tend to have more programs than do those not receiving such aid. Number of programs is, of course, an extremely gross measure of extent of attention to disadvantaged students; there is nothing particularly surprising in the findings. A reasonably accurate summation of these findings would be that special support programs abound where the tradition of service to disadvantaged students exists--with some exception among nonaccredited or Southeastern area institutions.

With regard to source of funding, almost one in three of the reported programs are funded exclusively through USOE, and thus would be strongly influenced by USOE guidelines as to content. About 15% of the programs are funded exclusively by state or local government, and almost 15% by institutional funds exclusively, while a little more than one-fifth of the programs receive funds from two or more agencies. Programs funded exclusively by other agencies of the U. S. Government or by private foundations account for only a little better than 10% of the total. Clearly, federal support is the prime resource being used for program support, with state and local, or regular institutional support appearing only half as frequently.

With regard to the content of the programs: the most frequently listed element, appearing in about 75% of the programs, was that of special academic counseling, guidance or advisory assistance. Almost two of three institutions report special recruiting effort or strategy (these are not necessarily supported components of Special Services Programs, where guidelines forbid recruiting activity). Tutoring components are reported in 63% of the programs; a little more than half provide for diagnosis of learning difficulties or for remedial courses. About 44% of the programs report components of special instructional media or strategies. However, taking these frequently provided academically-oriented elements--counseling, diagnostic work, tutoring, remedial courses, and special instructional media or strategies--only 341, or about 14% of the programs consist exclusively of one or more of these elements. In other words, a vigorous majority of the programs include nonacademic elements.

In relation to programs including financial aid, grants are the most frequently reported (60%), although work study (55%) and loans (52%) are almost as popular.

The most frequent extra-institutional resource employed in the programs is community agencies or organizations, with almost half of the programs containing such a component. About one-third report activities with high schools sending students to their institutions (these range from "bridge programs" to cooperative ventures designed primarily for recruitment), while work with other colleges or with business and industry is found in only one of every five programs.

Toward assisting disadvantaged students with post-college plans and activities, job placement, a component in 45% of the programs, is found about twice as frequently as guidance for graduate study, found in 22% of the programs.

D. Staffing for the Special Support Programs

There was a considerable variety of patterns in program staffing, number of students served, and costs per student. The typical program, as revealed by median values, involves two staff members and two faculty members and serves 50 full-time equivalent (FTE) students at a cost per FTE student of $673 per year (excluding financial aid awards).

Programs funded under the Higher Education Amendments of 1968, as reported in the survey data, tend to have a higher number of full-time equivalent faculty and staff, though foundation-supported programs have the next highest median number of staff, and to serve larger numbers of students. In addition, the Special Services Programs reportedly serve larger numbers of students per full-time equivalent faculty or staff at a cost per student that is slightly below the median reported for all programs.

In the first chapter of this report, data from the Division of Student Assistance, USOE, was cited as follows: in 1971-72, an appropriation of $15 million supported 190 Special Service projects affecting an estimated 51,500 disadvantaged students. If these figures and estimates are correct, the typical Special Services Program involved 271 students at a cost (to the Government) of $291 per student (mean values). The discrepancies in the survey data and the DSA data are marked. The Special Services Programs could have been supplemented with other funds (though probably not to the extent of discrepancy between DSA estimates and survey data); estimates of numbers of disadvantaged students could be high in the DSA data and low in the survey reports. There is also the difficult question of determining to what extent, and how, the program must touch the student for him to be counted as a member or as one affected by it. And, undoubtedly, there are a variety of ways of computing costs or assigning expenditures. In addition, distributions could be skewed, so that comparisons of means with medians could be misleading. Audit of a sample of institutions contributing to each data source would need to be employed to ascertain the absolute values, and some statistic such as student contact hours needs to be defined and used. In the meantime, the survey figures, when used to estimate descriptive values, should be regarded with extreme caution.

E. Numbers of Students Served and Per Student Costs

Institutions with higher proportions of disadvantaged involve substantially more students in their programs than the average of 50, as well as slightly larger numbers of faculty and staff than the average. Cost per student tends to decrease as proportions of disadvantaged on campus increase, although this relationship is not statistically significant.

The more selective institutions tend to report higher numbers of faculty and staff involved in their programs, but not a higher number of FTE students in their programs. Per student costs, however, appear to be higher in the moderately selective institutions than in open-door or highly selective institutions. Larger institutions tend to have larger programs in terms of faculty, staff, and students involved, but institutional size does not appear to be related to per student cost of the programs. Public institutions, particularly the public two-year institutions, on the other hand, tend to have programs with lower per student costs, no doubt a function of higher numbers of students per faculty or staff member assigned to the program. Public and private institutions with graduate programs serve larger numbers of students but at greater per student costs. Undoubtedly, overall institutional per student costs affect program costs. Program costs per student do not differ for traditionally white versus nonwhite institutions.

Institutions with one or more programs funded under the Higher Education Amendments tend to serve more FTE students in their program, with more staff (if not faculty), at a slightly higher cost per student.

Programs with more components, e.g., counseling, tutoring, remedial work, and so forth, report higher costs per student and greater faculty and staff involvement as might be expected. An increase in the number of components tends to create staff involvement to a greater extent than faculty involvement. Larger numbers of students tend to be served in programs including special classroom instructional strategies, loans and work study, extracurricular support, and guidance for graduate study, while those institutions with smaller numbers of FTE students in their programs are more likely to report a recruiting component.

F. Institutional Factors Related to Program Content

Larger institutions tend to report more frequently the components of academic counseling, tutoring, extracurricular support, job placement, and guidance for graduate study, but report less frequently the use of special instructional media or provision of remedial courses. Special instructional strategies are reported more frequently in the very small and the very large institutions. More selective institutions tend to stress counseling, tutoring, involvement with feeder schools, and guidance for graduate study, but less frequently involve infusion of support activities directly into the classroom, e.g., special media, instructional strategies, and so forth. An essentially similar pattern occurs when highest degree offered is considered. Programs in private institutions more frequently provide guidance for graduate study, but less frequently provide job placement, community agency involvement or remedial courses. There are few differences in the programs provided in traditionally white as opposed to traditionally nonwhite institutions. However, the nonwhite institutions recruit less frequently but report more frequent special intervention in the classroom. Finally, there is evidence that, with the exception of remedial courses, grants and loans, recruiting and work study, the institutions with programs funded under the Higher Education Amendments are more likely to have each of the support service components than are institutions otherwise funded.

G. Program Success as Suggested by Numbers of Disadvantaged Students Graduating or Continuing into Graduate Study

From the reports of the responding institutions, a wide range in the proportion of disadvantaged who graduate is reported. For all disadvantaged in all institutions, about half are believed to graduate, and about 10% are believed to continue into graduate study. The more selective institutions, the smaller institutions, and the residential institutions report higher proportions of disadvantaged graduating.

It would appear that funding under the Higher Education Amendments of 1968 has gone to institutions reporting lower proportions of disadvantaged graduating. Institutions never applying for Special Services Program funding report higher proportions graduating. The number of programs provided by an institution is not related to proportions of disadvantaged graduating. High proportions of disadvantaged graduating appears to be associated with smaller numbers of students per faculty member in the program and higher per student program costs. However, it should be remembered that most programs reported, and all Special Services Programs, have not been in existence long enough to produce a graduating class; accordingly, these findings cannot attest the success or failure of Special Services Programs as yet.

With regard to the foregoing: it is well known that colleges and universitites vary widely in the proportion of entering freshmen who graduate from that institution--this variation may indeed range from less than 20% to more than 90%. This means that when it may be timely to use a statistic such as "proportion of disadvantaged who graduate" to assess impact of Special Services Programs, the comparison must be against prior records for disadvantaged at the institution so that the analysis is not, as is frequently used in current institutional studies, the comparative proportions of disadvantaged versus regular or modal students. An even more powerful statistical strategy would be to use analysis of covariance procedures, regressing grades on prior performance, to determine if the intervention of Special Services Programs raises the y-intercept (or the mean performance) of the students served. The reports of proportions of disadvantaged students who enter graduate study follow highly similar patterns to those found for proportions graduating. However, institutions with remedial study components send fewer disadvantaged to graduate school while those that provide tutorial services, guidance for graduate study, and financial aid send more. It would be highly risky to infer causality in these instances, for it would seem more likely that gross institutional factors would afford a better explanation of the interrelationships.

H. Respondents' Recommendations for Optimal Programmatic Attention to Disadvantaged Students

The final set of questions in the survey was concerned with the responding individuals' opinions as to what would be an optimal arrangement for special programmatic attention to disadvantaged students for the 1972-73 academic year. Since it may be expected that the survey was generally completed by someone concerned with disadvantaged students, it is not surprising that four out of five respondents felt that additional funds would enable them to serve larger numbers of students. Another one in ten reported a need for additional funds to maintain present numbers of students, while only 19 of the 1,087 institutional representatives responding to this question reported that larger numbers of students could be served at the existing budget or a smaller one. Nevertheless, there is evidence that, given the financial incentive or wherewithal, larger numbers of disadvantaged could be accommodated. This increased financial support was most frequently expected from federal sources, though a number of institutional respondents indicated the potential of state funding should be stressed. Foundations were less frequently seen as a likely resource for additional money, and the dimmest prospects seem to reside in reassignment of regular institutional income; for example, endowment income is given a low rank of importance as a source for increased programmatic support.

I. Concluding Comments

It would seem prudent to state that the relationships observed at this point in time are more understandable in terms of the institutional characteristics and the stereotypes associated with different types or circumstances of institutions than they are in terms of their special program efforts. For example: continuing education at the graduate level may be pressed by a variety of programmatic emphases, but the impact can only be felt in institutions where values and emphases push toward graduate study, not in those that traditionally see their students in technical roles in the community after two years of training in a highly pragmatic work role. Institutions with the lowest attrition rates will inevitably show larger proportions of disadvantaged graduating, whether support programs are provided or not, and as previously noted, it would be extremely hazardous to infer that some of the relations observed are caused by the impact of the programs.

Given the limited time of program operation in most cases, it is more reasonable to assume that federal support amplifies existing institutional patterns. It is evident that federal support now going more frequently to institutions with higher attrition rates for disadvantaged (and probably others) may be a side effect of placing support where the disadvantaged are (in general, the more highly selective the institution, the lower the attrition rate). Where it should go is a matter best determined by judicious consideration of a number of factors--such as, opening a wide range of quality of institutions to the disadvantaged, as well as serving the largest numbers or meeting the needs where they may occur naturally. A critical final consideration would be placing the support and programs where they are found to be effective--that is, where they are found to be associated with reduced attrition and improved performance over previous standards for the institution. More time and longitudinal studies are needed to determine how programs may "transform" the institution. And, given the early lead taken by federal sources in supporting such programs and the obvious fact of their unusual costs without built-in financial compensation as from tuition and fees, it is not surprising that those responsible at the institutional level see their future tied to Washington.

It would therefore seem critical to look beyond this descriptive census toward additional research which is needed as soon as possible to determine the impact of the programs and their components on the progress and the lives of the disadvantaged students involved. Given positive findings (and obtaining any definitive answer will require time for the embryo programs to mature), the task then will be to seek ways in which the early responsibility undertaken by federal support could either be increased or expanded to include other sources--state, foundation, business and industry, or tuition adjustment--so that larger numbers of disadvantaged can be served. The most critical early sign of potential success from these data resides in the proportion of disadvantaged who, in 1971, were estimated to be enrolled as undergraduates. Although this figure of 14% is probably inflated, we have assuredly the highest proportion of students from poverty backgrounds now in college that has existed in history. The trick will be to keep them there, in good standing and with dignity, while continuing to expand a truly equal educational opportunity. Even if the figure of 14% is inflated (the inclusion of the proportional representation of 2-year community colleges would have pressed it higher), the census figures cited in Chapter 3 still suggest that at least 8.7% of the college population come from poverty backgrounds.

The need for further expansion of SSDS type programs, given proof of their effectiveness, is reinforced by the fact that of those institutions having more than 50% of their undergraduate population considered as financially disadvantaged, better than 15% have no programs of any type on campus. Moreover, it is reasonable to suppose that there are countless other disadvantaged students, surely more than are currently enrolled in post-secondary education, who are being denied access to higher education and thus denied access to existing supportive services. This assumption is based on the fact that the Talent Search/Upward Bound programs serve a small percentage of the target population and it would be reasonable to assume that both programs could triple or quadruple enrollments of disadvantaged in higher education with additional funding.

In focusing on racial differentiation in connection with need and program support, the survey data suggest that institutions, particularly selective institutions with predominantly white student bodies, enroll considerably smaller percentages of financially disadvantaged students. This particular relationship could be expected, of course, if for no other reason than the fact that the predominance of financial disadvantagement is disproportionately large in Black, Chicano, and Native American subgroups. However, it also suggests that at a substantial number of traditionally white institutions the barriers to access extend beyond the ethnic minorities and include the poor white as well. Given the growing militancy of the ethnic minorities, and the underrepresentation of poor white in special support services programs, a political as well as a social problem is suggested.

The survey data and other considerations also point to a need for a long-range policy perspective to determine where the financial responsibility for support programs should lie in the future. Can, or should, USOE be the principal source of funds and the chief stimulator of action on the education of disadvantaged students? The data certainly indicate continued reluctance or inability on the part of many American universities and colleges to assume a responsibility on this problem.

J. Summary

In the most general summary, the following major findings from the All-institution Census can be stated:

1. From the data collected in 1971 from 1,766 institutions of post-secondary education serving undergraduates, the best estimate of the proportion of enrolled undergraduates who are disadvantaged (from families within federal poverty criteria or with physical handicaps) is 14%. Applied to an estimated full-time undergraduate enrollment of 5 million students, this represents approximately 700,000 individuals. (This figure may be somewhat inflated: if the census figures (Table 3-1) that 8.7% of students come from families below $5,000 annual income are applied to the five million estimate, the number is about 435,000 individuals.)

2. There is considerable variability among the numbers of disadvantaged students with regard to type of college and geographical region.

3. Half of the institutions responding reported no special support programs for disadvantaged students. Of the support programs reported, one in three is supported exclusively by federal funding, about one in seven by state or local government, about one in seven by regular institutional funds, and only one in 20 by private foundations.

4. The median reported per full-time equivalent student cost of special support services reported in 1971-72 was $673. Variations in per student costs appear heavily related to institutional per student costs, as well as to kind and extent of services provided.

5. Institutions with federally supported Special Services Programs, as compared with programs supported by other sources, report larger proportions of their student body to be disadvantaged, higher numbers of full-time equivalent faculty and staff, and larger numbers of students per full-time faculty or staff member at a slightly lower cost per student. At the same time, it would appear that federal funding has been generally awarded to those institutions with lower proportions of their disadvantaged who graduate or who continue into graduate study.

6. What is provided for disadvantaged students, and what happens to them in college, rather clearly depends more on institution-specific factors than on support program factors. This is frequently suggested in the gross data collected by the survey. An adequate examination and elaboration would require a more extensive study and more definitive data on each institution's grading criteria and standards, attrition, achievement of graduates, costs per student, etc.

7. Six out of 10 college administrators responded to the questionnaire inquiry as to optimal numbers of disadvantaged students and program support funds for them. Of this group, about 8 out of 10 felt increased numbers could and should be accommodated, but that increased funding support would be needed. Thus, about half of the responding institutions indicated interest in and desirability of increasing enrollment of disadvantaged students.

CHAPTER 5

The Institutions, Their Students and Their Support Services Programs

Introduction

No extensive analyses of the General Institutional Questionnaire (Part I) were conducted, for reasons that will become obvious. As these reasons reflect limitations in the data, thus affecting any generalizations therefrom, they should be stated at the outset.

As noted in Chapter 3, following initial mailout, considerable and vigorous follow-up was undertaken, and a relatively high proportion (82%) of the 122 institutions in the sample ultimately returned institutional questionnaires. Yet, inspection of the content of the response reveals two major difficulties.

First, the vast majority of the institutions apparently could not easily, if at all, produce from their records some of the critical information requested. This is reflected particularly in the base-time data requested to establish trends, i.e., in the breakdowns of applicants and enrolled students by majority-ethnic or poverty status for the years beginning 1967-68. This was also the case in response to requests for data on ability by minority group. Although in many cases (as the data show) better records are being kept in more recent years, the problem of identification--and perhaps some reluctance to single out, measure, and tally--appears to have restrained or prevented accurate and complete response. Of the enrollment breakdowns given, almost all were keyed as estimates, rather than verified actual counts.

Second, some of the data presented are conflicting or hardly credible. Although care was taken to formulate clear definitions and instructions, these appeared not to have been followed in some instances. In other instances, the responding individual or individuals appeared not entirely knowledgeable about the range of programs, policies, and activities, and events at the institution he represented.

One clear-cut recommendation emerges immediately: that is, institutions should be given substantial advance warning as to the kinds of data needed, so that as ongoing records are assembled this may be done to facilitate retrieval of critical information. In telephone conversations or correspondence with respondents, hostility was seldom expressed toward the chores; rather, these conversations indicated simply that on short notice there was no way to retrieve some data requested, although reorganizing files now could make such data accessible next year.

The purposes of the portion of the inquiry reported in this chapter are to examine, where possible, any trends in the numbers of disadvantaged on the campuses studied; to inventory and affirm the nature of support services currently available (the Student Questionnaire asked respondents from the same campuses about the support services of which they were aware); and to summarize any apparent problems or successes the institutional respondents report in dealing with the disadvantaged.

A. Enrollment Trends

Information was requested on the numbers of applicants, enrollment, and proportions of students failing to continue into the second year, classified by category of disadvantage. Respondents were urged to provide estimates, identifying them as such, where counts were not available.

Of the 100 institutions submitting a Part I, General Institutional Questionnaire, 93 were able to give total enrollment in 1967-68, and all gave 1971-72 enrollment. However, for 1967-68, only 37 gave estimates (including an estimate of zero) of numbers of Native Americans; 45 (excluding 22 traditionally black institutions) gave estimates of numbers of Blacks; 34, Mexican Americans; 18, Puerto Ricans; and 37, "others." By 1971-72, however, with progressive increases in numbers reporting breakdowns each year, the number of schools able to count or estimate numbers of minorities had almost doubled, with 61 estimating numbers of Native Americans, 69 (again, excluding the 22 traditionally black) estimating numbers of Blacks, 54 estimating numbers of Mexican-Americans, 29 estimating numbers of Puerto Ricans, and 66 estimating numbers of "others (racial or ethnic) minorities." In 1967-68, only 36 institutions provided estimates of numbers of poor whites, and 22 gave estimates of numbers of physically handicapped; for 1971-72, 49 institutions gave estimates in each of these two instances.

The number of institutions providing breakdowns of enrollment by race tend to level off in 1970-71. There is little increase in institutions reporting for 1971-72.

The problem of missing data is more marked in the requested breakdowns for applicants or for proportions not continuing into the second year. In the case of applicants, of course, minority group membership is not readily available. The question of whether it should be is problematical: given possibility of discriminatory practices, disadvantaged applicants could suffer; yet to assume responsibility for correcting imbalances, goals must be specified, and action taken to obtain them. But, be that as it may, only about half of the institutions providing enrollment (actual or estimated) breakdowns by race also provided estimates of applicants by race and these were usually percentages appearing to be based on enrollment. The data in both instances seem unsatisfactory for estimating enrollment or applicant trends in general over these five years, and hardly adequate for establishing trend data as a separate institutional variable.

For the most recent year (1971-72), over 40 of the 100 institutions were able to provide estimates on attrition of minorities and, in a few cases where numbers of minorities were small, actual counts. (But, in fact, many institutions were not able to provide attrition data on students in general.) Of these 40 institutions, 12 reported no apparent difference in rate of attrition for regular versus disadvantaged subgroups (though comments frequently indicate estimates were based on the guess that no differences existed); 10 institutions report higher attrition for disadvantaged; 13 report lower attrition for disadvantaged; and five present mixed pictures—in four instances, very high relative attrition for Indians only, and in one instance, very high attrition for Chicanos only.

Of the 100 institutions responding, 32 were able to provide data or estimates on admissions test scores for one or another disadvantaged subgroup in at least one year. Of these, 18 reported scores from the Scholastic Aptitude Test (SAT) of the College Board; 14 reported scores from the American College Testing Program Scores (ACT).

It is hazardous, of course, on the basis of such limited data to draw any conclusions. But, it is quickly apparent that discrepancies in score averages between regular vs. disadvantaged students seem less likely to exist in community colleges or traditionally black institutions. Excluding the latter category, the range of differences between the means of regular vs. disadvantaged is, on the SAT, from a mean score difference of from 60 to almost 200 points on the 200-800 scale (18 institutions), with a median value of about 130 points. The advantage is always in favor of the regular or nondisadvantaged groups. Given a usual standard deviation for SAT scores within a given institution and class of about 70 to 80 points, these data suggest that the disadvantaged students have an average that would fall, in general, within the bottom ten percent of the scores for regular students. There is, as would be expected, a tendency for institutions with higher all-student means to show higher disadvantaged student means.

For the 14 schools reporting ACT score means for the several groups, a similar pattern occurs. That is, disadvantaged students score from one to ten ACT total score units lower than do regular students. Yet, these data are so fragmentary, and their utility and validity so questionable, that it is probably safe to say only that there is no evidence that any institution reporting is working with disadvantaged students that are highly selected by scores on traditional tests.

Thus, from the limited data available, it may be stated that, as generally believed and reported in other studies, there is a discrepancy between test score values for regular versus disadvantaged students. Second, the degree of this discrepancy varies from institution to institution. There is a suggestion of some limits to the discrepancy, e.g., institutions with higher scoring regular students tend, as noted, to have higher scoring disadvantaged students. There is no strong tendency, for those few schools reporting both attrition and test scores by subgroup, for degree of difference in test score means between regular and disadvantaged to be related to degree of difference in attrition rates, but the data are clearly too fragmentary and flimsy to provide real evidence in this regard.

Data on minority or physically handicapped faculty and administrative staff were apparently more readily available and were reported by 75 institutions for 1971-72. Of the 63 traditionally white institutions reporting such data, 26 were able to provide breakdowns by rank for both 1967-68 and 1971-72. In general, minority faculty or staff in the 63 traditionally white institutions are concentrated in the lower academic ranks or in nonacademic administration. However, it is obvious from scanning the year-to-year data that receiving a contract for a Special Services Program had impact by immediately producing minority staff, particularly in counseling roles, though without immediate noticeable change in instructional staff. It is also apparent (Table 5-1) that the numbers of minority group faculty and staff are slowly increasing at the 26 traditionally white institutions reporting data for all years. For example, minority counselors represented 9% of the total counseling staff in the traditionally white institutions in 1967-68, but about 25% in 1971. In 1967-68, the 26 institutions reporting showed 1.6% of the instructors to be from minorities; in 1971-72, the proportion had increased 3.2 times that proportion to 5.1%. Even in these two most relatively dramatic instances, however, the increase is not very great, and minority faculty at the higher ranks are still virtually nonexistent in the reporting institutions.

B. Inventory of Support Services Provided by the Institutions

The General Institutional Questionnaire (Part I) provided a list of twenty-nine support service elements or special activities for which the respondent was asked to indicate (1) if the service was locally available, (2) if the service was originally designed and initiated for students in general, the disadvantaged, or both, and (3) which students made most frequent use of the service. The results are presented in Table 5-2.

The various services reported prove to be relatively ubiquitous: of those listed only the following were not found in at least three-fourths of the institutions reporting: courses in improving writing (74%); tutoring by faculty (73%); reduced course load provision (72%); independent study (71%); counseling about or help in entering graduate school (67%); courses in improving numbers skills (64%); instruction in test taking (51%); special place for minority social activity (36%); released faculty time for special attention to students (34%); and special minority residence (7%).

Most of the services (with the exception of the two tagged specifically for minorities--special housing or place for social activity) were purportedly developed for students in general, or both regular and disadvantaged. The most frequent service created for the disadvantaged is work-study (included in slightly over one-third of the programs reported), followed by counseling on personal budgeting and financial problems (32%). Scholarship and grant programs were reported as created expressly for disadvantaged in only 9% of the instances, and loan programs in 13% of the instances. Assistance in finding part-time employment was initiated for the disadvantaged in only 3% of the programs reported. This is interesting in terms of the frequent challenges (such as those cited in Chapter 2 from the Cartter Commission report) that scholarship aid goes to the academically able, not the poor. The data corroborate that work-study, not scholarships, is the kind of financial aid most likely to be created for the disadvantaged.

Table 5-1

Proportions of Faculty and Staff Who Are Minority Group Members or Physically Handicapped in 26 Institutions Reporting for Both 1967-68 and 1971-72

Rank	% of Total in Rank 1967-68	% of Total in Rank 1971-72	Rate of Increase*
Academic Deans and Above	4.6	6.2	140%
Other Administrators (excluding department heads)	7.2	12.1	170%
Counselors	9.0	24.9	280%
Full Professors (not already listed)	1.5	2.2	150%
Associate Professors (not already listed)	1.5	3.6	240%
Assistant Professors (not already listed)	1.8	3.2	180%
Instructors and Other Teaching Staff (not already listed)	1.6	5.1	320%

*Derived by dividing the 1967-68 percent of total in rank by the 1971-72 percent.

Table 5-2

Frequency of Support Activities, Kinds of Students for Which Each Was Designed, and Kinds of Students Making Principal Use of Each

	Activity	No. of Institutions Reporting Activity	% of Institutions Reporting	Proportion* Designed for			Proportion* Used Primarily by		
				Students in General	Disad-vantaged	Both	Students in General	Disad-vantaged	Both
1.	Tutoring by other students	92	88	22	21	60	12	37	47
2.	Tutoring by faculty	77	73	22	17	55	17	31	42
3.	Professional counseling for personal problems	95	90	36	3	62	25	5	66
4.	Prof. counseling on job or career choices	94	90	36	3	62	30	1	63
5.	Prof. counseling on academic problems	95	90	32	5	63	20	7	67
6.	Prof. counseling on financial or budgeting	79	75	32	32	19	54	14	49
7.	Student loan	91	87	32	13	56	14	22	62
8.	Scholarships or grants	92	88	25	9	68	14	22	63
9.	Work-study programs	91	87	18	35	47	10	44	45
10.	Student health services	89	85	40	1	53	24	1	69
11.	Help in choosing courses & planning program of study	97	92	34	4	61	20	8	68
12.	Independent study	75	71	50	3	52	39	1	57
13.	Honors program	57	54	63	0	46	53	2	47
14.	Cooperative work programs	55	52	35	7	60	27	5	64
15.	Assistance in finding housing	72	69	43	1	57	19	1	78
16.	Assistance in finding part-time employment	91	87	43	3	52	21	8	67
17.	Reduced course load	76	72	29	30	39	18	28	49
18.	Courses in cultural heritage of minority groups	85	81	25	29	44	20	25	47
19.	Courses or programs in reading improvement	89	85	30	25	43	13	31	49
20.	Courses or programs in improving writing	78	74	32	24	40	9	35	53

Table 5-2 (continued)

Activity	No. of Institutions Reporting Activity	% of Institutions Reporting	Proportion* Designed for			Proportion* Used Primarily by		
			Students in General	Disad-vantaged	Both	Students in General	Disad-vantaged	Both
21. Courses or activities toward improving study efficiency	81	77	28	19	52	15	23	52
22. Courses or programs toward improving number skills	67	64	22	21	54	12	31	48
23. Instruction or advice on how to do well on tests	54	51	26	20	52	17	22	54
24. Freeing faculty time for special attention to students	36	34	28	19	50	22	28	44
25. Counseling toward attending graduate school	70	67	49	1	50	33	1	63
26. Help in choosing a graduate school	70	67	46	1	53	33	1	60
27. Job placement	94	90	41	1	56	32	1	63
28. Special residence house for minority group(s)	7	7	0	71	43	29	71	14
29. Special place for minority group social activity	38	36	3	63	29	8	71	13

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*These proportions are each based on the number of institutions reporting the specific activity. They fail to add to 100% in most cases because of multiple responses or failures to respond to the successive questions.

Remedial courses, or special tool skills courses, were activities frequently (19% to 29% of the programs reported) created especially for the disadvantaged, relative to the other services. Tutoring, by students or faculty, or released faculty time for special attention to students, was created for disadvantaged in about 20% of the instances. Reduced course load is also an activity created relatively frequently, in 30% of the instances, for disadvantaged.

Clusters of services or provisions that are clearly not expressly for disadvantaged are revealing, for they may suggest discrimination, and they certainly suggest holes in current support programs for disadvantaged. These include professional counseling; independent study or honors programs; assistance in finding housing or, as previously noted, part-time employment; and help in entering graduate school or in job placement.

Estimates of the kind of student who most frequently uses these services follow the pattern noted about the groups for which the activity was primarily designed, although the proportions of programs reported used by disadvantaged are generally slightly higher than the proportions of programs reported to be designed primarily for disadvantaged, e.g., tutoring by other students was reportedly initiated in 21% of the instances expressly for disadvantaged, yet 37% of these instances saw principal use by disadvantaged. A notable exception to this trend is professional counseling on personal financial problems. Only 14% of the programs reported principal use by disadvantaged while 32% reportedly were created for disadvantaged, suggesting difficulties in reaching the target group with this service.

The obvious limitations in these data are (1) the fact that some of the activities may be provided formally, others quite informally, and (2) target group or principal use indicated may be more a matter of individual respondent opinion than of fact. Nevertheless, the data do point to some areas of special need (e.g., help in finding housing or employment, or in getting into graduate school) and hint that scholarship (e.g., independent study and honors programs) may be still tagged more frequently for the outstanding student, while the work-study opportunity goes to the disadvantaged.

C. Opinions as to Institutional Factors and Programs Affecting the Disadvantaged

The General Institutional Questionnaire contained a number of open-ended questions that were designed to permit maximum freedom of response toward developing more formal or structured categories for later use. Given the probability that a responding individual cannot report accurately for the institution, but may color answers with a judgment that varies from respondent to respondent, these responses have real limitations if taken too readily at face value. Nevertheless, the open-ended items were completed in large proportions of the returned questionnaires and the comments were frequently instructive or revealing.

One such pair of items asked about programs that had been either especially helpful or not so helpful for disadvantaged, and why. Programs or activities receiving a vote of confidence most frequently were work-study and other financial aid provisions; tutoring (with tutoring by students frequently cited as more effective than tutoring by faculty); basic skills courses; ethnic identity oriented courses (providing for a sense of identity and self-pride); and, in general, the Special Services or other "Trio" programs representing packages of coordinated services. Comments as to why these were effective most frequently reported a special orientation to and direction from a particular minority interest: it is clear that it is believed that for special attention to be effective, it must be targeted for and controlled by the particular subgroup. Another reason reported for impact had to do with careful and insightful specification of objectives and thorough direction.

The programs judged not as effective nor as helpful as hoped for deal with the same range of kinds of activities as those found helpful. But it is more likely that a specific program of activity, rather than the general class of activity, will be singled out, and the reason for its ineffectiveness described more credibly or sharply. The problems, in general order from most frequent to least frequent class of explanation, are: limitations of funding, reductions in funding, or loss of funding; student apathy or hostility resulting in avoidance of the service (sometimes because he doesn't recognize his need for the service, sometimes because the program was poorly planned or managed); and not enough time for planning properly, or poor timing, e.g., "the program was started too late in the year." Other reasons noted occasionally include institutional inexperience or faculty reluctance to accept the tasks, e.g., "the faculty was not oriented to working with the disadvantaged mature woman"; lack of aggressive leadership; not having minority staff; and low visibility of program.

Of the two most frequent classes of reasons for failure or limited effectiveness, limitations or reductions in, or loss of, funding is hardly surprising. Programs generate real costs; and, of course, loss of or reductions in funding may occur more frequently when programs have not proved to be effective for other reasons. The other most frequent cause for failure--student apathy or hostility--shows clearly that effective programs are not merely a matter of more money, nor will program availability assure its acceptance by the target group. Both of these reported reasons suggest that the reporters were citing symptoms rather than causes.

The institutional respondent was also asked to provide the "major reasons" for attrition of disadvantaged students and most respondents did venture opinions in answering this open-ended question. Heading the list in order of frequency of mention are those situational reasons one might suspect: financial problems; health problems; marriage or the military; the language barrier; academic failure; inadequacy of preparation; poor study methods; and courses not relevant to interests. These are, though probably reasonable explanations, the "pat" answers.

That other unique problems may affect the disadvantaged is shown by the variety of additional reasons postulated. These include: legal problems, homesickness, interference by demands of regular job, transportation problems (for the commuting poor), inadequate housing or lack of proper equipment (for the physically handicapped), cultural shock. In a few instances the respondent blamed discriminatory aspects of the institution itself, e.g., "insensitive and unaware faculty and staff." More frequently, however, the preparatory institution was blamed, e.g., "insufficient high school counseling."

A number of other reasons given tend to blame the student, his family, or his subculture--in short, these were reasons that would probably not have equal credibility for the minority group member himself. Some of these are: parental philosophy; lack of sense of responsibility; "cultural background of nonfamily support"; inability to adjust to the white institution; lack of social acceptance; poorly defined educational objectives; low self-esteem; failure to take advantage of counseling, remedial work, or tutoring; and holding to unrealistic goals. While such reasons may be plausible from some perspectives, they each outline problems that one may assume sensitive college treatment could obviate. Ways are needed to facilitate viewing the reasons for these "failures" of the disadvantaged as equally plausible failures of the institution, toward the assuming of institutional responsibility for the prevention of their occurrence.

Another critical matter for report has to do with the respondents' opinions as to impact of disadvantaged students on the institution. One question asked: "In terms of changes in policy and practices at your institution, what has been the impact of both disadvantaged students and programs for the disadvantaged on the total institution?" Responses to this question were made by most institutional respondents. Their validity, of course, is heavily dependent on the astuteness and insight of the responding individual, and this surely varied from institution to institution. However, a first observation that would nevertheless seem significant is that only positive impacts were noted.

Beyond this absence of any impact that could be classified as negative or detrimental, the kinds of impact perceived are instructive. Most frequent are recognition of need for institutional change, or the making of that change. Changes in admissions requirements, the curriculum, faculty attitudes, and teaching strategies are frequently seen as a result of the increased presence of the disadvantaged student or program. The other frequent class of impact is the greater awareness, understanding, and acceptance of the disadvantaged, the recognition of his plight, and the general democratization of the campus his presence has prescribed.

Other positive impacts include reports of fairly concrete or objective evidences--increased enrollment of disadvantaged, reduced attrition, new sources of funding, or increased community support.

Another open-ended question concerned with factors affecting the disadvantaged asked for specific "major events, activities, or policy changes... during the past five years that have affected attitudes of administration, faculty, or students toward (the disadvantaged)." For some of the respondents, this elicited the naming of a particular support program. Others cited consequences such as increased numbers of minority students, increased hiring of minority staff, minority student participation in student governance, provision of basic or ethnic studies programs, or even the election of a Spanish-speaking president. Most of the events were positive in tone: a student riot was cited in only one instance; one program for migrant farm workers was terminated because of disagreement as to how it should be administered; and one institutional respondent referred to a "new policy of no preferential treatment for minorities."

D. Other Activities of Special Interest

1. Activities to Encourage Graduate Study

The Special Services Program guidelines and other federal emphases reflect new priorities to reduce the inequities in the disadvantaged graduate student ranks. One open-ended item asked about special services offered to encourage or counsel disadvantaged students to enter graduate study. As previously noted, the tally of specific support services offered did not show particular unique emphases in these activities for the disadvantaged; and many institutional respondents did not answer the open-ended question. Those who did tended to cite relatively sterile or general activities, such as naming a general Special Services Program activity or a special individual, e.g., "the Coordinator of Minority Affairs." Many simply referred to customary practices for all students such as general support toward this goal by faculty and department heads with individuals coming to their attention, or the bulletin board displays. A small number of respondents cited unique and special activities, such as a special liaison with graduate schools. Though data available to the research team reveal graduate departments and institutions are, in range of selectivity, as heterogeneous as undergraduate institutions, there does not yet seem to be a clear groundswell of activity to see disadvantaged pressed or aided on to graduate study.

2. Activities for the Armed Forces Veteran

Recent federal priorities for serving the educational needs of veterans have also emerged with the increase in numbers of returning servicemen. One question asked: "Does your institution have any special program designed to locate, attract, or facilitate the adjustment of veterans to your campus? If so, describe this program briefly." Greater concern for and recruiting of veterans was indicated somewhat more frequently than was concern for seeing disadvantaged go on to graduate study. Though some respondents cited only the fact of having a "Veterans Affairs Officer" or a Veterans' Club or student group, a number of institutions did substantiate special efforts such as the employment of student veterans for recruiting other veterans, a "V.A. Tutorial Assistance Program," tuition waiver as a state policy, the employment of veterans as teachers, regular (recruiting) trips to V.A. hospitals, recruiting advertisements in Armed Forces publications, special mailing to lists of overseas servicemen, and the like. It can be concluded that although many see the veteran as one needing help in getting any benefits due as a result of his government service, there appears a receptivity to tapping this source of student raw material that is, at this stage, concerned more with increasing the numbers of veterans than with easing any special problems of their adjustment to campus.

E. General Summary

Although the results from the General Institutional Questionnaire were limited because of difficulties the institutional respondents experienced in assembling the data--or the brute effort required by a rather extensive questionnaire--or the fact that many questions dealt with opinions--some general information of note was achieved.

The institutions involved in the sample were drawn from those with some numbers of disadvantaged students enrolled; although all parts of the country and all kinds of institutions were represented, generalizations can not be made to all U.S. institutions of higher education. The objective of the sample was to focus on those institutions that had achieved some experience with the disadvantaged, and to learn from that experience.

Among the institutions in the sample, the advent of federal funding for programmatic services to disadvantaged students does seem to be associated with increase in minority faculty (at the lower levels) and staff (particularly counselors). While this increase is dramatic in terms of rate of increase, the minority presence is still infinitesimal as a proportion of _all_ faculty or administrative staff.

Of all support services: those perceived to be designed, appropriate for, or used by, disadvantaged students, are similar to those services provided for regular students, with some important exceptions: work-study aid, not scholarship aid, is designated for the disadvantaged; and professional counseling, by psychologists or psychiatrists (as opposed to special services kinds of counseling) honors programs, help in finding housing, or employment, and special activity to encourage graduate study, are infrequent emphases.

There was some evidence of negative or damaging stereotypes in reporting the peculiar problems of the disadvantaged student. Most of this had to do with attributing difficulties encountered to deficiencies of the student or his subculture even in areas in which the institution might reasonably assume responsibility. However, the total weight of the data suggest that most institutions in the sample have come a long way in the past few years toward accepting the disadvantaged student as a valued individual, assisting him with unique problems (particularly financial problems), and establishing special services or courses for him.

Upward trends in disadvantaged student enrollment and minority faculty were noted, though the fragmentary data offer evidence that the rate of change is still painfully slow.

The most encouraging sign of all for those who would hope that higher education can become honestly more responsive to the disadvantaged is the frequency with which disadvantaged students are viewed as having positive institutional impact. This suggests that although institutions may reflect the broader prejudices of their own past and of the society they represent, they are becoming responsive to the student clientele placed before them, they are accepting the challenge, and, in subsequent self-study or review, they are accentuating the positive.

CHAPTER 6

The Disadvantaged Student on Campus:

Student Questionnaire Analysis

INTRODUCTION

Of the numerous data collection instruments used in this study the Student Questionnaire (a copy of which is included in Appendix A) is a centrally important instrument for the evaluation study. It was designed to provide:

1. An identification of disadvantage or nondisadvantage, with disadvantage defined as closely as practicable from the Special Services Program Guidelines.

2. An inventory of potentially relevant biographical factors--family composition and socioeconomic status, parents' educational and occupational levels, early childhood experiences, and the like.

3. The student's perceptions of his own needs, and his recommendations for improvement of his supporting environment.

4. A series of criteria of impact of postsecondary institutions and programmatic attention upon the student: his level of academic performance; his degree of satisfaction with a variety of aspects of life in college and with the assistance he is receiving; his knowledge and use of special program features; his aspirations and expectations for continued study; and, his adoption of general values inherent in the goals of higher education.

Although the student interview provided some subjective data on disadvantaged students and their reactions to postsecondary institutions and various subtle programmatic features, the survey questionnaire was needed to provide a more objective picture of who and what the populations of disadvantaged students are, and where they stand in comparison with the modal students at the range of institutions now attempting to accommodate new student groups. The focus of the student questionnaire was on behavior and attitudes of the postsecondary student that relate to his performance in and satisfaction with his program of studies.

The approach to analysis reflects a conceptualization of the process of supportive programmatic activities for disadvantaged students in postsecondary education. These programs can be represented by a simplified process model. Such a model is presented in Figure 6-1 (p. 6-2). Various aspects of this model (operational characteristics, characteristics of resources required for operation, characteristics of by-products) are examined in other sections of

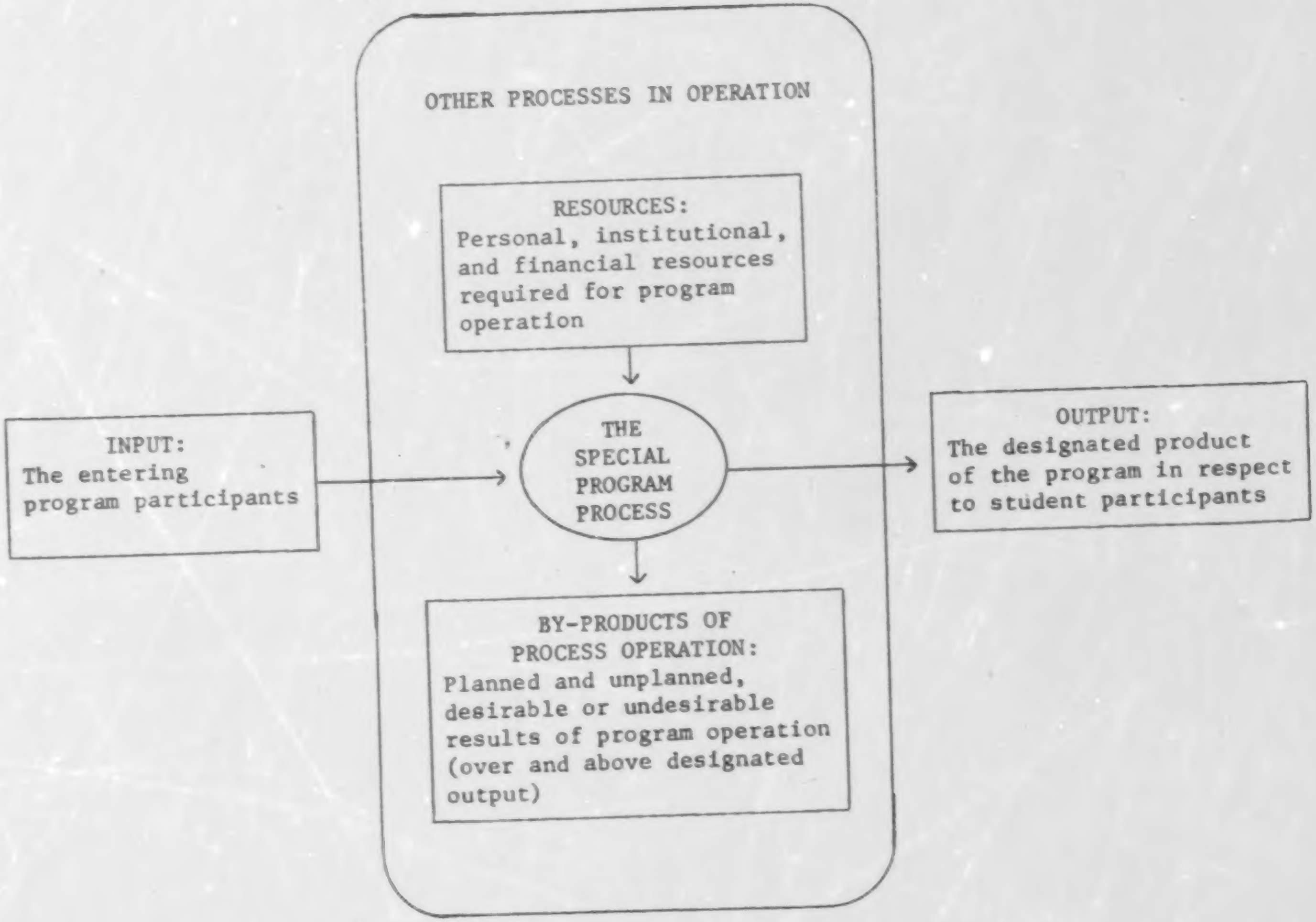
OTHER PROCESSES IN OPERATION
RESOURCES:
Personal, institutional, and financial resources required for program operation
INPUT:
The entering program participants
THE SPECIAL PROGRAM PROCESS
OUTPUT:
The designated product of the program in respect to student participants
BY-PRODUCTS OF PROCESS OPERATION:
Planned and unplanned, desirable or undesirable results of program operation (over and above designated output)

Figure 6-1. A process model of special programs

this report. For this chapter, however, inquiry will be directed toward the characteristics of input (and potential input) to the special programs; the output measures for various student groups; and the relationships between output measures and certain characteristics of program function as well as functional and structural characteristics of other external processes in which the special programs are imbedded. The most obvious external process in operation is the specific postsecondary educational institution hosting the program.

The process under examination is one which takes place over an extended period of time. Thus, a thorough examination of the process would consider the time factor (including, perhaps, baseline measures and subsequent measures at various points in time). Such a longitudinal picture would reflect modification of input over the period of study and would capture the dynamics of the process as it may be modified to different degrees by internal or external pressures. Our time frame of analysis, however, is static in nature, reflecting data collected at one point in time. Evaluation of the process within such an analysis rests on a considerably less secure data base and set of assumptions. Such cross-sectional analyses involve comparisons of different groups (disadvantaged students and modal students; program participants and nonparticipants) on various output measures, and drawing inferences from those comparisons regarding program evaluation.

In drawing such inferences, one should be extremely careful to consider other possibilities that may explain the comparative results. Comparative differences may result from: (1) differential program structure and/or function (including lack of program); (2) differential input characteristics; (3) differential resource utilization; (4) differential external processes operation; or (5) two or more of these factors in additive or interactive combination. Thus, prior to suggesting the program as the influencing factor, one should carefully examine other characteristics of the data to ascertain whether alternate explanations are available. This suggestion is reflected in the analyses of student questionnaire data reported in this chapter.

Three basic analyses of data from the student questionnaire are reported herein. First is an essentially descriptive set of analyses. In this context, the disadvantaged student is contrasted to the modal or nondisadvantaged student in terms of (a) essential biographical characteristics (e.g., age, sex, marital status, parental occupational and educational levels, and community of origin); (b) personal educational and vocational activities, accomplishments, and aspirations; (c) perceptions of the current educational environment; (d) perceptions of financial matters; (e) perceptions of other social and personal needs; (f) personal values and cultural affiliations; and, (g) plans for the future. As such, the analysis focuses on differences in input, current throughput and intermediate output measures.

The second set of analyses is concerned with examining differences among both disadvantaged and modal students along various dimensions drawn from institutional classifications. This represents an analysis related to the institution--one of the major external processes operating on the student.

The goal of the third set of analyses is to establish personal, institutional, and programmatic factors that are associated with student oriented evidence of effectiveness of the educational environment for the disadvantaged as previously defined (see Chapter 3).

Although sampling considerations have been presented in Chapter 3, specific plans for student questionnaire sampling will be briefly reviewed. Once the institutions in the study sample had been identified, the selection of students within institution was accomplished. It had been decided early in the course of the study that only second year students would be used in the study. This decision was not an arbitrary one; rather, it was determined in order to (a) provide some educational experience comparability between two-year and four-year institutions; and (b) to include students who had maximum exposure to the specific educational environment given the constraints of (a) above. This selection procedure was implemented by an institutional representative within each institution. It was decided early in the project that on-campus student sampling could be accomplished more efficiently (and perhaps more representatively) by a local campus staff or faculty member who had shown interest in the treatment of the disadvantaged student, and who, therefore, should have gained some knowledge of group membership through contact with various subgroups of disadvantaged students on his campus. It was anticipated, and, in fact, born out empirically, that institutional records involving student family income level and race would be at best sketchy; thus the use of an interested, and informed, institutional representative was seen as the "optimal" approach to reaching the students of concern over a very broad range of institutions. Each institutional representative was provided with a set of instructions for such sampling (included in Appendix A, and more fully explicated in Chapter 3).

It should be recalled from information presented in Table 3-2, Chapter 3, that the student samples within the institutions were to include from 55 to 112 disadvantaged students, and from 20 to 25 modal or nondisadvantaged students, the latter category to represent from about one-third to one-fifth of the institutional sample, or about 28 percent of the total sample of students aggregated across institutions. It was anticipated that the institutional representatives would have some difficulty in defining the population of the target subgroups from which sampling was to take place. Accordingly, careful guidelines and suggestions were provided them to aid in the task. The institutional representatives were referred to the following campus sources for assistance in this identifying of groups: (1) registrar files, (2) program directors of any Special Services Programs or their equivalent, (3) admission and financial aid records, (4) student health service, and (5) student association leaders, particularly heads of ethnic student organizations.

The approach the student sampling is thus seen as a heuristic attempt to reach the students of interest. The trade-off costs incurred due to utilizing this approach are documented below; however, the reader is undoubtedly aware of the loss of precision and generality of results that can arise when sampling control is vested in a basically uncontrolable source. The plan relied heavily on the interested and conscientious involvement of the institutional representative (a reliance that was, unfortunately, not well founded).

Prior to our data analyses, we turn briefly in the following section to an examination of the quality of the student questionnaire data. In that section we will examine some of the problems in the data and the rather somber implications for subsequent data analysis.

A. Questionnaire Return Rate and Quality of Student Questionnaire Data

Overall return rates in terms of student questionnaire data collection were rather unimpressive. Of the 12,300 questionnaires that should have been completed (as determined by a formula based on the number of disadvantaged target subgroups reported on campuses--see Table 3-3, Chapter 3), only 8213 (66.8%) student questionnaires were returned. There was, as would be expected, considerable variability across institutions in completion rate of student data ranging from absolutely no returns at 9 institutions to complete returns at 33 institutions. Some institutional representatives reported student boycotts; others found uneasy situations on their campuses at the time the administration was required; some institutional representatives were more aggressive than others in identifying and rounding up students. A detailed breakdown of this variability is given in Table 6-1.

Quite apart from any "justification" of such a low return rate, there are some unfortunate implications for subsequent analyses due to this complete lack of response from almost a third of the projected student sample. The most obvious implication is the possibility of strong biases in the results reported below. Data bias may be introduced either at the institutional level or at the student level. Certain classes of institutions are unrepresented, having provided no student data; while other classes of institutions are underrepresented having provided only a small proportion of the suggested sample size. (The nature of the self-selective response bias introduced by the nonresponsive institutions is well documented--and is proportionally quite large in a cluster sampling scheme such as that used here.)

At the student level, "nonresponse" to any marked degree also presents a heightened likelihood of data bias. This is particularly true in a study such as this where the number of variables for student classification is large. The danger of self-selection bias is again the major factor here. Rarely is it safe to assume that nonresponse operates at the same level within different student classification subgroups. The more likely situation is that members of a particular subgroup (e.g., disadvantaged students, black students, female students, etc.) are more likely to refuse to provide data than other subgroups. This situation, of course, compounds the bias at the institutional level.

Table 6-1

Institutional Variability in Return of

Student Questionnaire Data

Percent of Quota*	Number of Institutions	Percent of Total Number of Institutions
0%	9	7.4%
1% - 24%	2	1.6%
25% - 49%	17	13.9%
50% - 74%	32	26.2%
75% - 99%	29	23.8%
100%	33	27.1%

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*Quota determined by number of disadvantaged target subgroups on campus.

Overall return rate, thus, is not necessarily an appropriate index of the success of data collection. The subgroup response rate and the quality of the data returned is more germane. One critical set of items in the institutional questionnaire (asking family income, family size, race, presence or absence of specific physical handicap) was used to determine the "disadvantaged" status of the student respondent (see Section B-1 of this chapter for the specific decision rule for such classification). Due to incomplete or contradictory responses to the items, 604 of the returned questionnaires were unusable since the student could not be classified as to disadvantagement and/or race. The remaining questionnaire data (N = 7655; representing slightly more than 93% of the returned questionnaires and about 62% of the anticipated data base) constituted the basic data set used for the analyses reported herein.

Once students had been classified as to disadvantagement, it was possible to determine the extent to which the intra-institutional sampling plan had been appropriately effected. Table 6-2 shows actual returns in terms of specific disadvantaged target groups and modal students. First, one may observe that modal students are considerably more widely represented in the data base than had been anticipated. Original projections of the sampling plan called for over 2.5 times as many disadvantaged students as modal (see Table 3-3), while the actual data revealed that there were more modal students than disadvantaged--a situation which could not be explained even if all nonrespondents were "disadvantaged." Secondly, some disadvantaged target groups suffered much greater proportional attrition than did others. (The direction of the bias is directly observable from Table 6-2).

Regarding the greater proportional attrition of some disadvantaged target groups, it should be pointed out that projected figures were based on only partial knowledge regarding the proportional representation of specific target groups on a given campus (it should be recalled that the exact number of students to be sampled from a target group was to be determined by the institutional representative on the basis of a stratified probability sampling frame). The partial information used to project expected numbers consisted of the figures specified by the institutional representative at first contact; as such, they were not necessarily accurate estimates. The questionable accuracy of these first estimates was informally substantiated through subsequent contact with many of the institutional representatives. It was not uncommon for a group initially identified as consisting of several hundred students to shrink--upon closer scrutiny by the institutional representative--to less than the required number for the group to be considered a "target group." (In one instance, it was discovered rather late in the data collection stage that the required sample size of 95 sophomores considerably exceeded the size of the entire available student body--a fact not previously available either to the research staff or USOE.) More importantly in this regard, however, were various comments from institutional representatives regarding the inability to obtain sufficient numbers of students, from validated target groups of ample size, who were willing to participate in the study (reasons given ranged from apathy to student boycott). Further, it was not uncommon for institutional representatives to report

Table 6-2

Return Rate for Student Questionnaire

Data by Specific Student Target Group

Group	Number of Questionnaires Returned	Percent of Anticipated Return*
Disadvantaged		
Physically Handicapped	321	40.2%
Poor Black	1669	47.2%
Poor Chicano	399	38.2%
Poor Native American	139	25.8%
Poor Oriental	21	8.1%
Poor Puerto Rican	54	20.4%
Poor White	892	39.5%
Other Poor Students	74	46.2%
TOTAL	3569	40.3%
Modal	4086	117.6%

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*See Table 3-3 for anticipated return.

differential ease of data collection within specific student subgroups.[1] These instances have grave implications for the high likelihood of extreme sampling bias due to self-selectivity in terms of specific target groups, at least within some specific institutions.

An examination of the data in regard to specific target groups at specific institutions indicated that target groups originally specified were included in the sample, but typically in less than desired or expected numbers. There also existed at most institutions small numbers of individuals not anticipated in terms of original target group specifications (e.g., two poor Puerto Ricans at a small private selective institution in the central midwest). Some of these individuals were likely to be those "faking" responses (a hazard of any survey study); however, it is possible, in most instances, that such individuals did exist on campus but not in numbers large enough to be defined as a target group, and were included in the modal sample. As such, however, the likelihood that they would be picked up in the wide-meshed net of a random sample is quite slim.

Regarding the disproportionate number of modal students represented in the returned data, there are numerous alternative explanations, most of which have some credence. One likely factor influencing this data problem--one substantiated in conversations with and correspondence from various institutional representatives--was the use, by institutional representatives, of definitions of disadvantagement other than the one supplied them (the one derived from Special Services Program Guidelines and based on poverty or physical handicap status). This problem of defining the "disadvantaged" is one that plagued the research team throughout the course of the study. The focus of the evaluation was on disadvantaged students as defined by federal guidelines for the SSDS Program; this definition states as two basic criteria poverty level or physical handicap. It was hoped that these criteria for determining disadvantaged students could be applied consistently. Many of the institutional representatives, while presumably comprehending the federal guidelines and specific definitions provided (there was evidence in a few cases that this presumption was unjustified), had apparently developed preconceptions of what constituted a disadvantaged student (e.g., race, educational disadvantagement, etc.). Consciously or unconsciously, those preconceptions could be reflected in their samples. On the other hand, it could be the case in some instances that students honestly considered as poverty level proved not to be so in light of the federal guidelines as applied here. Still another alternative is that the institution had no accurate data on family income through which to identify target students.

Another factor quite likely having some influence on the large number of modal students is the widely reported finding that students often do not know or tend to overestimate their family income on survey questionnaires. Since report of family income was one of the items used to operationalize disadvantagement (see Section B-1 of this chapter for classification scheme), it could well be that some students classified as "modal" on the basis of questionnaire response were in fact "disadvantaged" in terms of actual family income. An attempt was made in classification to correct somewhat for this response tendency, in that rather liberal application of the federal poverty criteria were used. Further, a check of the data was performed to establish the possible extent of this type of error. If, in fact, such errors were operating at a gross level, there would probably be a large clustering of modal students in the lowest modal income categories. (Examination of the data indicated, however, that this was not the case.) Other factors which could have influenced this phenomenon to varying degrees were: (a) deliberate "faking" of responses; (b) data transmission errors (although a check of the transcribed data against the raw questionnaire data for a sample of questionnaires showed an error rate of less than 1 error per 1,000 transmitted characters); and (c) other errors in sampling of students by the institutional representatives. Whatever the cause, this oversampling of "modal" students (and corresponding attrition of "disadvantaged" students) has marked implications regarding sample bias as a result of differential selectivity. Moreover, it severely limited some of the anticipated statistical treatment of the data as a result of reduced group sizes.

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[1] At one institution, black students and their director refused to provide any data on grounds that the researchers represented a racist organization; the Chicano, Indian, and Puerto Rican groups, fearful of losing their program if they did not cooperate, pressed to be included.

Our discussion of the data quality to this point has centered only on a very small number of the 459 possible responses to the student questionnaire. The problem of "missing data" on those remaining response items needs to be considered, for this problem results in even further "data shrinkage." The student questionnaire data showed considerable variability in terms of "missing data" both within and between institutions. There were instances in which one or more questions were left unanswered by all respondents at certain institutions (and in three of these instances, the omissions were known to be at the direction of the institutional officials administering questionnaires--with reasons given similar to those advanced by interviewers who omitted certain items as reported in Chapter 7). On at least two occasions, it was evident from the returned student questionnaires that (contrary to specific instructions given to the institutional representatives) some unknown party had opened the sealed envelopes in which each student had placed his completed questionnaire, and had rendered unreadable all student responses to specific questions with opaque writing fluid.

Despite the basically unthreatening nature of the student questionnaire, it was apparent, upon receipt of the completed instruments, that at some institutions this data was perceived as quite threatening. It was learned during the course of the study, for example, that at one institution the representative had refused to allow his students to answer an item (number 51) in the student questionnaire that asked for student agreement with the views of a range of visible ethnic group leaders. (For example, black leaders included such individuals as Martin Luther King, Rap Brown, Stokley Carmichael, Malcolm X, Whitney Young, Angela Davis, and Mohammad Ali.) An optional response to each of the names listed was "I don't know much about him." The reason advanced by the institutional representative for refusing to allow answers to this question was "I don't want my students looking stupid because they don't know who these people are."

Perhaps more damaging to subsequently reported findings is the fact that examination of missing data for each questionnaire item indicated a fairly generalized "nonresponse" bias on the part of the disadvantaged student. Highly significant differences ($p < .001$) between the poverty disadvantaged (and to a considerably smaller degree the physically handicapped disadvantaged) and modal students were found in the area of response omission to specific questionnaire items.[2] Such items were generally those probing into personal history and/or beliefs and convictions--the "disadvantaged" student was less likely to answer the item. This may be a form of defensiveness, an act of contempt and aggression, or an externally directed act, but, in any event, the fact of this generalized nonresponse bias on the part of the disadvantaged student introduces additional bias into the data and additional limitations on the findings.

A final comment on the basic failure of the sampling plan is reflected in student response to item 18 of the questionnaire (an item requesting class in school). The sampling plan called for a sample of second year students. The actual distribution of student respondents in terms of their statement of their classification is given in Table 6-3. From the table, it can be seen that the aim of obtaining all second year students was emphatically not realized. While it is possible for a "second year" student (at the end of the academic year when questionnaires were administered) to be classified as a freshman or to be classified as a first semester junior, it seems quite unlikely that he would be a senior. For these exceptions to occur with such great frequency would seem to refute the hypothesis that these were in fact second year students regardless of student classification. To cloud matters even further, an examination of student classification for "disadvantaged" students as opposed to that for "modal" students showed proportionately greater numbers of poverty level students who were freshmen. The most likely explanation for such results would consider the time pressures on an institutional representative attempting to fulfill a quota of completed questionnaires from previously specified student subgroups often under conditions of considerable student resistance.

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[2] Specific items for which nonresponse was proportionally greater for the disadvantaged were: 11, 12, 13, 21, 26, 30, 31, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 49, 50, and 51--see Appendix A.

Table 6-3

Student Classification of Questionnaire Respondents*

Classification	Number in Classification	Percent of Total
Freshman	4192	51.5
Sophomore	3034	37.3
Junior	528	6.5
Senior	222	2.7
Other	159	2.0

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*Total consists of the 8135 respondents answering this item.

Although we have gone to considerable length above to point out difficulties in the data, the informed reader is aware that many of these same problems, to varying degrees, exist frequently in survey research. Given the time pressures of the study schedule, it would have been unrealistic to anticipate trouble-free data or sampling (although the extent of some problems were greater than anticipated after the extensive time devoted to preadministration planning and lengthy instructions to avoid obvious pitfalls). The missing data problem, faking problem, incomplete returns, and other sampling problems (even when complete control over sampling is maintained) are virtually unavoidable in survey research with college students. Techniques of adjustment (weighting) for nonresponse (at the institutional, student, and/or questionnaire item level) are available. Given the loss of sampling precision at the institutional representative level and the resultant additional critical dimensions introduced into the data, it was felt that employing such techniques would be infeasible. One is, therefore, faced with the reality of attempting to speak to the greatest number of important questions with the considerably less-than-perfect data he has collected. Toward this end, we proceed, noting that these problems pose real limitations in interpretation. The incompleteness of returned data (both in terms of return rate and missing data) will most likely introduce considerable bias into the results reported. Due to the fact that there was much variability across institutions in return rates, one should be particularly careful in interpretation of results which take into consideration institutional factors. Also, since there were disproportionate shrinkages in specific disadvantaged target groups, any comparisons across such groups could be challenged on these grounds. The response biases in terms of the disadvantaged students being more likely to omit certain responses also pose serious limitations on the interpretations and analyses which follow. These limitations will be taken into account in interpreting the data.

B. Modal Disadvantaged Differences

With the limitations specified in the previous section foremost in mind, we turn to an examination of some major differences found between modal and disadvantaged student respondents (a complete tabulation of all questionnaire items by modal/disadvantaged is available for examination, contact Dr. Robert Berls, OPBE, USOE). Prior to such consideration, however, it is essential to define the classification operation used to define disadvantaged students.

1. The Determination of Student Disadvantagement

The classification of students as either (1) physically handicapped, (2) poverty level disadvantaged, or (3) modal, was a two step process. First, a determination of physical disability was made--regardless of poverty status--and next, for those students not classified as physically handicapped, a determination was made as to poverty status.

Item 8 of the student questionnaire (see Appendix A) was used for the first determination. This item listed various categories of physical disabilities (as well as a category for no disability) to be checked as appropriate by student respondents. If a respondent indicated that any of the disabilities were applicable to him (and at the same time did not check the category of no disabilities) he was classified as a physically handicapped student. Any student indicating both the presence of one or more specific disabilities and the presence of no disability obviously presented inconsistent data and could therefore not be classified.

For all remaining respondents (i.e., those not previously classified as physically handicapped or unclassifiable due to inconsistent data) a determination was made as to poverty status. Federal guidelines[3] define poverty level on the basis of (a) family income, (b) family size, and (c) farm-nonfarm family status. No item in the student questionnaire could definitively establish current farm or nonfarm family status (see item 15 of student questionnaire, Appendix A); therefore, only the first two criteria were used in the classification operation. Family income was determined by response to item 10 of the questionnaire, and family size was determined on the basis of responses to items 3, 4, and 19 of the questionnaire. If the respondent did not answer the family income item (item 10), he was considered nonclassifiable. If, on the other hand, there were one or more omitted responses in terms of marital status (item 3), number of persons the respondent personally supported (item 4), or number of persons the parent or guardian supported (item 19), then certain assumptions were made. Specifically, for a nonresponse to item 3, the respondent was assumed to be single; nonresponse to either item 4 or item 19--but not both--led to use of the nonomitted item for family size; nonresponse to both item 4 and item 19 led to an estimate of family size as 4. These assumptions can be challenged on many points (although the logic of their use is reasonable). It was felt, however, that these assumptions would not greatly influence the data (the maximum number of nonrespondents to any one of these three items was 165 or 2% of the total questionnaire return) and would prevent further data shrinkage. The underlying rationale for using three variables to determine family size was to better represent family size of those married students burdened with their own support. The basic decision rules for family size were as follows: (1) if the respondent was single, number of parents' dependents was used; (2) if the respondent was married and supported no more than one person (including self), number of parents' dependents was used; (3) if the respondent was married and supported two or more persons (including self), that number was used; (4) if the respondent was widowed, divorced, or separated, the maximum of item 4 (persons personally supported) or item 19 (persons parents supported) was used. On this basis of determining family size, the classification as to poverty status is indicated in Table 6-4. A comparison of this classification to the federal criteria will clearly indicate a very liberal interpretation of the federal criteria (as specified above). The results of this classification yielded 321 students classified as physically handicapped (3.9% of returned questionnaires); 3283 were classified as poverty level disadvantaged (40.0%); 4086 were classified as modal (49.8%); 520 were unclassifiable respondents due to omission of item 10 (6.3%); and 3 were unclassifiable respondents due to conflicting responses to the item requesting information on physical handicap (less than .01%).

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[3] Series P60, Number 71, Table 6, Bureau of Census, U. S. Department of Commerce, July, 1970. An abstract of the relevant criteria is provided in Appendix A.

Table 6-4

Classification of Students as to Poverty Level

Family Income	Family Size	Classification
Less than $3000	Any	Poverty
$3000-$4499	1 or 2	Modal
	3 or more	Poverty
$4500-$5999	1 to 5	Modal
	5 ~~or~~ more	Poverty
$6000-$7499	1 to 6	Modal
	7 or more	Poverty
$7500 and above	Any	Modal

2. Characteristics of the Subgroups

As would be expected (because of oversampling the various ethnic groups), the proportions of students classified by specific ethnic groups did not correspond with national percentages, either in terms of total population or college population. Of the 8052 students who could be classified, 3% were native American, 38% were black, 8% were Mexican American, 45% were white, 1% were oriental, 1% were Puerto Rican, and 3% defined themselves as some "other" ethnic subgroup. Blacks, native Americans, and Mexican Americans--and to a small degree, Puerto Ricans--were proportionally over-represented in the sample of respondents among the poverty level disadvantaged students. The ratios of relative numbers of poverty level to modal students within these ethnic groups varied somewhat, but typically it was of the order of 2 to 1. An opposite trend (proportionally greater numbers of modals than poverty level) existed for whites, orientals, and "other" ethnic groups. Over two-thirds of the physically handicapped group were white, yet white students represented less than half of the total sample. Moreover, a native language other than English was more prevalent among the poverty level students.

Of the 8128 respondents who could be so classified, there were slightly over 500 more females (53%) than males (47%) in the total sample. The proportion of females varied with disadvantagement. Modal students showed a remarkably even split between males (49.7%) and females (50.3%), while the poverty disadvantaged students were more predominantly female (57.2%) and the physically handicapped students were predominantly male (61.3%). On closer examination of the data, it was discovered that the greater proportion of females in the poverty level group was mainly attributable to the marked difference for the black subgroup, where females outnumbered males in the poverty-level category by a factor of 2 to 1.

Median age for the entire sample (N = 8134) was 19, but the age distribution showed a marked positive skew with 13.5% of the group indicating an age of "24 or older." Age also varied with disadvantaged status. Modal students were younger on the average. Physically handicapped students were by far the oldest group with 28.3% in the "24 or older" category. When race of respondent was held constant, however, major age differences between poverty level and modal students existed only for the white and "other" subgroups.

When classified by marital status, the large majority of the total sample (N = 8122) was single (84.8%) although 906 students in the sample were married (an additional 11.2%). As would be expected, considering the age of the group, very few (N = 24) students professed to be widowed. There were notable differences in marital status among the levels of disadvantagement classification. Proportionally more of the disadvantaged (both poverty level and physically handicapped) were married, widowed, divorced, or separated. The relative numbers of divorced "disadvantaged" students was three times larger (though still proportionally small in terms of the specific subgroup size) than that of the modal students. The relative number of separated poverty level students was also three times larger than that of the modal students (still, however, representing only a small proportion of the poverty level group). Although poverty level students and physically handicapped students made up less than half of the total group, the number of widowed individuals in these two disadvantaged student groups was about three-fourths of the total "widowed" group. Small cell frequencies made relatively meaningless in a statistical sense the "within" racial comparisons.

Of the 8050 students who could be classified as veterans or nonveterans, 7.6% were veterans. While the proportional number of veterans among the poverty level students and modal students was almost identical, a somewhat larger percentage of the physically handicapped (11.7%) were veterans.

The distribution of respondents in terms of the area in which they were raised (see item 14, of the Student Questionnaire in Appendix A, 7993 respondents could be classified) was relatively uniform. Some 22% were from large cities (500,000 or larger) and 13% were from smaller cities (50,000 to 500,000). Another 10% were from suburban areas of such cities and 21% were from smaller cities (10,000 to 50,000). Over one-third of the respondents were from small towns (less than 10,000) or rural areas (19% and 15% respectively). The poverty level students differed somewhat from the modal students in terms of this variable, although the distributions of modal and physically handicapped were quite similar. As would be expected, proportionally fewer of the poverty level students (7%) than modal students (13%) came from suburban areas (it should be kept in mind that not all "suburban" areas are of the stereotypic affluent type). The urban poor (cities of 50,000 or greater) represented about one-third of the poverty level group (a similar figure existed for the modal group); however, the rural and small town poor (41% of the poverty level group) was disproportionately large when compared to modals from these same areas (28% of the modal group).

It should be kept in mind that differences cited above should not be "overinterpreted." In view of the sampling procedure (both of institutions and of students within institutions), some of the differences could easily be anticipated (e.g., since all institutions originally stating the presence of a physically handicapped target group were predominantly white institutions, the large relative number of white students in this disadvantaged group is not at all surprising). The figures given above are reported primarily for purposes of providing the reader with a basic "feel" for the characteristics of the respondent sample--both as a total group and by subgroup differences. This should provide a considerably more informed base for the evaluation and interpretation of other differences found between these groups (see B-4). Particularly important in this regard is that, to the extent that these variables (for which modal and disadvantaged differ) are related to outcomes, then differences with respect to such outcome variables may be attributed (at least partially) to these differences.

One further difference between the subgroups of interest is presented in Table 6-5. The table shows the distribution of the various subgroups across the 113 institutions submitting Student Questionnaire data. As can

Table 6-5

Number of Institutions Providing Student Questionnaire Data for Various Subgroups of Interest

	Number of Institutions Providing Data					Percentage of Total Number Institutions Submitting Data (N=113)
	Subgroup Size				Total	
Student Classification	1-5	6-10	11-15	16 or More		
Modal						
Native American	28	3	1	0	32	28%
Black	29	16	9	34	88	78%
Chicano	12	6	11	2	31	27%
White	8	9	9	62	88	78%
Oriental	18	0	1	1	20	18%
Puerto Rican	12	4	0	0	16	14%
Other	46	2	0	0	48	42%
Poverty Level						
Native American	18	7	3	1	29	26%
Black	28	17	13	36	94	83%
Chicano	15	7	4	8	34	30%
White	27	16	14	22	79	70%
Oriental	11	1	0	0	12	11%
Puerto Rican	10	5	0	0	15	13%
Other	36	2	0	0	38	34%
Physically Handicapped	69	3	6	3	81	72%

be observed, the proportion of institutions contributing data (which influences the statistics for the specific subgroups) varies considerably--from lows of 11% and 13% for poverty level orientals and Puerto Ricans respectively to highs of 83% for poverty level blacks and 78% for modal whites and blacks. This would be expected to some extent due to the sampling plan used and the differential distribution of the specific groups among the population of postsecondary institutions. Additionally, Table 6-5 vividly points out (also as expected) that there is considerable variability among institutions in terms of actual numbers of students for which data is available within a given student category. The basic result of this variability is that institutions differentially contribute to the overall characteristics of the various subgroups. Given the heterogeneity of institutions and the potency of institutional factors--selectivity, type of program, etc.--that may affect student variables, differential institutional contributions to overall statistics may lead to spurious differences between groups that are in fact attributable to institutional differences.[4] The potential dangers of aggregate analyses of this sort are numerous and well documented, and present a further warning to the cautious reader for care in overinterpretation of the data presented in this section.

We have previously referred to a small group of students in one sample which we have classified as "disadvantaged" due to physical handicap. While this group is relatively small, it should not be assumed that it is a homogeneous group in regards to the specific handicap (or handicaps) leading to group membership. While we treat this group as an aggregate, some specifications of the heterogeneity of the disabilities of those classified in the group is needed. The diversity of the group regarding the specific handicap experienced is given in Table 6-6.

Clearly the group which we arbitrarily treat as similar are quite different in the type of handicap they bring with them to postsecondary education. Each disability, of course, has unique implications for the pursuit of education, requiring quite different modes of facilitation on the part of the institutions involved.

3. Validating Differences between Modal and Disadvantaged Students

Group differences on some of the Student Questionnaire items were used as validating responses for student classification (see Section B-1) in that they represent correlates of poverty level or physical disability. Such group differences have little interest in themselves since they either have been consistently observed in previous studies or are quite predictable.

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[4] Original analysis plans called for analyses controlled for institutional differences (some such planned analyses are given in later sections of this chapter). As discussed above in Section A, and as indicated by a comparison of Table 3-3 and Table 6-5, "Target Groups" (expected in terms of 15 students as a minimum tended to shrink at an alarming rate, thus precluding many of the planned analyses.

Table 6-6

Types of Disabilities Experienced Within the Physically Handicapped Group (N=321)

Disability	Percent
Sight only	31
Hearing only	4
Speech only	7
Loss of limb (not requiring wheelchair)	33
Disability requiring use of wheelchair	22
Combinations of above	3

By nature of the disadvantagement classification scheme, the modal group and the poverty level group differed on the following items used in the classification: number of persons supported (item 4); family income (item 10); and parents' dependents (item 19). The modal students did not differ markedly from the physically handicapped students on these items.

Further, the modal and poverty groups differed in terms of education level of mother and father (item 11; N = 7217 for father's education; N = 7451 for mother's education). While more than 24% of the poverty level students reported that their fathers had not finished grade school, only 8% of the modals gave this response. Similarly, more than 64% of the poverty group reported father's education as less than a high school degree, compared to only 36% of the modals giving such responses. Fathers with education beyond a four-year college degree were relatively infrequent (less than 2%) in the poverty level group as compared to the modal group (over 10%). A similar trend existed for mother's education--16% completing less than eight years and 59% completing less than twelve years in the poverty level group, as compared with 5% and 29% respectively in the modal group. There were no marked differences on this item between modal students and physically handicapped students.

For the 6704 students responding to item 12, father's occupation, differences between modal and poverty level students were in the expected direction. A majority (61%) of poverty level students indicated that their father's occupation was either unskilled or semiskilled work; only 30% of the modal students gave such responses. This difference between the groups was reflected inversely in the more "prestigious" occupation levels. Again, the physically handicapped group did not differ substantially from their modal peers in terms of father's occupation. An analysis of mother's occupation yielded similar differences between modal and poverty level students although less pronounced (these results are more difficult to interpret in that the category "housewife" was not provided as a response alternative).

Subitem 1 of item 13 requested information regarding proportion of college support provided by parents, guardians or other relatives. While 43% of the modal respondents named this as a source of support providing anywhere from half to total costs, only 19% of the poverty level respondents gave such responses. Similarly, 18% of the modal group indicated no support from parents, guardians or other relatives, while 35% of the poverty level group gave this response. Physically handicapped students also differed from modals in the direction of a smaller proportion of college support provided by parents; however, the difference was not as marked as that for the poverty level students.

Item 15 of the Student Questionnaire requested information concerning the student's past exposure to various environments. A greater proportion of poverty level students, as opposed to modal, indicated they had lived in: (1) Model Cities areas (26% and 16% respectively); and (2) Federal Housing Projects (15% and 7% respectively). More than 8% of the physically handicapped indicated they had lived in boarding schools as compared to less than

0.5% for the modal and poverty level students (this latter small percentage could indicate a "faked response" or a misclassification.

Item 16 of the Student Questionnaire requested information as to type of neighborhood in which respondent had spent most of his life. Based on a respondent sample size of 7609, poverty level students in the majority of cases (54%) indicated the "low income" category as representing the type of neighborhood where they had spent most of their life. Others classified their neighborhoods as "middle income" (46%) and "upper income" (less than 0.5%). Modal and physically handicapped students, on the other hand, saw their neighborhoods primarily as "middle income" (72%) or "upper income" (5%); with the remaining 23% classifying their neighborhood as "low income."[5]

Item 32 of the questionnaire (7522 respondents classifiable) requested information concerning participation in precollege programs (i.e., Upward Bound, Talent Search, etc.). Of the poverty level students, 22% indicated participation in such programs as opposed to 11% of the modal group and 14% of the physically handicapped group.[6] Further, subitem 8 of item 33 requested information regarding the inclusion of financial aid as part of that precollege program. Of the poverty level students participating in such programs, only 47% reported receiving financial aid; however, only a slightly lower proportion of participating modals (42%) also received financial aid (the definition of poverty level used herein does not, of course, exclude the possibility that "modal" students were not eligible, under other criteria of need, for financial aid).

The final validating response considered was that to item 26 of the questionnaire, seeking information as to percentage of graduating peers from the respondent's high school who continue their education. For the 7442 students who could be classified, the results were in the expected direction: 49% of modals came from high schools where half to almost all of the graduates continued their education; yet only 34% of the poverty level students came from high schools with such high rates of continuing education.

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[5] Perfect agreement between such subjective neighborhood classification and a more objective determination of poverty level is not to be expected, since there are doubtless many poor people who do not fall within the poverty level specified by federal guidelines. The students classified as poverty level who indicated they had lived in middle income neighborhoods could have been classifying on a basis relative to some considerably inferior neighborhoods; however, the 20 poverty level students who classified their neighborhoods as upper income present a more serious problem. Of these 20 students, 17 were also married and the classification scheme may have failed in their case. In any event, these 20 students are certainly atypical poverty level students--if their response is given any credence--and quite likely introduce some error into the findings of this research.

[6] It should be noted that precollege programs did not exclusively specify federal programs designed for poverty level students. Even if it had been interpreted as such, there are provisions for inclusion of some nonpoverty level students in these programs.

Additional validating group differences will emerge in other responses; however, the items presented here are considered the important checks. None of these validations, taken singly, gives complete credence to the student classification schema (as imperfect correlates, they could not under the most ideal conditions). Taken as a whole, however, the consistency with which the classifications are corroborated does indicate that the classification decision rules were reasonably accurate and that student responses are credible. At worst, these corroborations show that the responses of individuals to the questionnaire items were consistent[7] (whether they were consistently "faked" or not is an unanswerable question).

4. Description of Precollege Differences between Modal and "Disadvantaged" Students

Given the classification schema and limitations of such an analysis, we now turn to a description of more critical differences among the three groups of major interest (modal students, poverty level students, and physically handicapped students). It should be pointed out that these and subsequent analyses in Section B are aggregate analyses over all institutions in the study sample returning Student Questionnaire data. As such, the many institutional specific factors affecting responses have been ignored (institutional influences will be considered in Section C). Also, differential institutional contribution of data (see Section A above) will have some influence on these data. Other differences between the three groups, already noted, may be confounded with the student group differences examined, and it is important to view these analyses in a descriptive sense. Even with such restrictions, certain patterns emerge from the data, and they will be examined in context (items with high nonresponse levels were not considered).

The major input differences considered in this section (other than the obvious ones of disadvantagement status and ethnicity) are experiences during the elementary and secondary school years. Several questionnaire items were directed to those experiences which have been shown to be related to general educational preparation and achievement.

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[7] Consideration should be made of the possibility of strong positive relationships between the various correlates of poverty status discussed above. If, in fact, strong relationships exist, then the inconsistencies in one validating comparison would be, probabilistically, the same individual showing inconsistency in another comparison.

a. Experiences While in Elementary School

Item 47 of the Student Questionnaire was designed to elicit responses regarding 20 selected (academic and extracurricular) experiences during the elementary school years. The respondent group for these 20 sub-items ranged from a low of 7207 to a high of 7325. Group differences existed in a statistically significant ($p < .001$) sense for 12 of the 20 experiences; however, in only seven instances were such differences marked enough to be of any practical significance. In general, poverty level students were less likely than either modal students or physically handicapped students to have: (1) parents who had helped them with school work; (2) parents who had talked with teachers; (3) practiced with a musical instrument; or (4) avoided going to bed hungry. Both poverty level students and physically handicapped students were less likely than modal students to have had a family member who read to them. Physically handicapped students were more likely than either modal students or poverty level student to have: (1) missed school because of illness, or (2) avoided fights with others their own age.

There are some obvious implications regarding educational preparation and the hardships of physical disability and poverty in these findings, but such findings are not far removed from expectation. Of perhaps greater interest is the fact that there were no differences among the groups regarding the reported relative frequency with which (1) books were checked out of the school library, (2) grades of A were received on tests or assignments, (3) poor grades were received on tests or assignments, or (4) elementary school teachers were admired.

Both differences and lack of differences observed could be due to different frames of reference for the different groups. The frequency with which the various events were perceived to have occurred could be relative to the peer reference group (which was likely to be different for the poverty-level and modal groups). Further, even in an absolute sense, the lack of difference in frequency of receipt of "poor" or "good" grades could be a function of the likelihood that elementary schools attended by the poverty level group were of a considerably different nature than those attended by the modal group. Grades are, of course, relative within schools.

The overall thrust of these results, nevertheless, points to the conclusion that while reasonably predictable group differences exist in the prehigh school experience (some of which have implications for continuing educational experiences), on the whole, the prehigh school academic experience was not greatly different for the three groups (at least for the set of experiences considered here).

b. Experiences While in High School

Several items of the questionnaire were designed to obtain information regarding experiences during the high school years. The major constructs considered were: (1) high school characteristics; (2) accomplishments in high school; (3) general cultural activities; and (4) influences on educational continuance. These constructs are considered separately in the following sections.

(1) High School Characteristics

There were several differences between the characteristics of the high school which had been attended by the three groups. Although the proportion of the total group of respondents attending public high schools (item 22) was high (89%, with N = 7611), it was even higher for the poverty level students. There was also a tendency for the poverty level students to come from smaller high schools than either of the other two groups (based on 7582 respondents to item 25). The most dramatic difference among the groups in terms of high school characteristics was the predominant ethnic group at the high school which had been attended (N = 7576). For both the modal and physically handicapped groups, over 70% had come from predominantly white high schools. On the other hand, less than 50% of the poverty level students had attended predominantly white high schools--an additional 40% of the poverty level students had attended high schools where the predominant ethnic group was black or Mexican American.

Regarding high school size, the attendance at relatively smaller schools by poverty level students as opposed to modal students was consistent for all racial subgroups. Within most ethnic groups, the greater proportion of poverty level students attending public schools also held. Exceptions were observed for orientals and Puerto Ricans, where poverty level students were a bit more likely to have attended private high schools; and for native Americans, where poverty level students were almost twice as likely as modals to have come from Bureau of Indian Affairs schools.

One would expect that the disproportionate representation of the various ethnic groups in the poverty level classification could easily explain the differences between the modal and poverty groups in terms of the predominant ethnicity of high school attended. To some extent this was supported by the data, when it was examined within specific ethnic groups. This information is abstracted in Table 6-7. While the tendency of modal students to have attended predominantly white high schools holds for all groups except native Americans, orientals, and Puerto Ricans, the most obvious percentage differences in Table 6-7 are the differences between students of differing ethnic groups within both the modal and poverty level classifications in terms of predominant ethnicity of high school attended.

Discounting the smaller ethnic groups and considering only the three major ethnic classifications (black, Mexican American, and white) where the percentage figures given are considerably more precise, the pattern of high school attendance shown in Table 6-8 needs some clarification. The data surely reflect somewhat the status of desegregation of secondary schools (although it should be kept in mind that this is not a national probability sample). Moreover, differences between modal and poverty level students

Table 6-7

Percentages* of Students Attending High Schools of Differential Predominant Ethnicity of Student Body

Student Ethnic Classification	Student "Disadvantagement" Classification					
	MODAL			POVERTY LEVEL		
	Predominantly White High School	Predominantly Non-White High School	No Majority Ethnic Group in High School	Predominantly White High School	Predominantly Non-White High School	No Majority Ethnic Group in High School
Native American	48%	45%	7%	52%	41%	7%
Black	43%	49%	8%	32%	62%	6%
Mexican American	45%	37%	18%	31%	54%	15%
White	92%	2%	6%	88%	4%	8%
Oriental	18%	61%	21%	29%	61%	10%
Puerto Rican	27%	49%	24%	30%	45%	25%
Other	53%	31%	16%	35%	51%	14%

*Percentages are for specific cross-classification groups (i.e., 52% of all native American poverty level students attended predominantly white high schools).

within the black and Mexican American groups likely reflect residential patterns. The fact that over 90% of the white students in the sample come from predominantly white high schools is probably no more than a reflection of the fact that most white high school students are in predominantly white high schools. To interpret this data further would be entirely speculation.

Related to high school type were two questionnaire items (27 and 28) requesting evaluation of the high school attended on the basis of academic program and racial harmony respectively. Based on total responses of 7578 and 7359 respectively, the responses of modal students and physically handicapped students were almost identical; both of these groups tended to rate their high schools more positively (on both academic and racial harmony) than did the poverty level students.

It was again the case that upon closer examination of the data (taking race of respondent into consideration), modal poverty level differences in perceptions of high school quality were not the same within each ethnic group. Perceptions of academic quality were, however, in precisely the same direction (i.e., modal students perceived their high schools as better in academic quality than did poverty level students) within all but one of the ethnic groups. The most pronounced difference of this nature existed for the Puerto Rican group, where less than 25% of the poverty level students rated their high school academic program as "good" or "very good" as opposed to almost 50% of the modal Puerto Rican students choosing such description. Mexican American students, on the other hand, showed a very small difference between poverty level and modal students' perceptions of the high school academic program (but in the same direction as for the other groups). The one exception to this finding was the native American students. Within their ethnic subgroup, poverty level students saw their high school academic program in a much more favorable light than the modal students.[8] With the exception of Mexican American and Puerto Rican students, there were only minor differences within the poverty level student group between the various ethnic groups in perceptions of high school academic quality. The two exceptions noted saw their high schools' programs as much worse than did the other groups. Thus, at least in their own estimation, poverty level students, in general, tended to come from high schools perceived to have poorer academic programs. This is certainly consistent with previous findings regarding poverty-pocket schools. This may be further compounded, however, for poverty level students of Spanish origin.

The matter of racial strife within high school showed considerably greater variability when considering race. As stated above, the general finding indicated that modal students came from high schools with relatively greater racial harmony than did poverty level students. This difference held for the two largest ethnic groups in the study sample (white and black) as well as for native Americans and "others"; however, the situation was reversed for both the Chicano and Puerto Rican students, while oriental students showed no modal-poverty level differences regarding this matter. Among the poverty level students, white and Mexican American students were most likely to come from high schools with little racial strife, while black students and Puerto Rican students were least likely to come from such schools.

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[8] As discussed elsewhere in this report, there is considerable heterogeneity within the native American subgroup. The exceptional variance within this subgroup across various subcultures (not controlled in this study) could easily account for almost any differences found.

(2) High School Accomplishments

High school accomplishments were assessed by two questionnaire items; item 21 called for a report of high school grades, and item 29 called for report of specific areas in which honors or awards had been received.

The analysis of differences in high school grades should certainly be considered in light of previous differences found between groups regarding type and quality of high school. Based on 7521 reports of high school grades, modal students showed practically no difference from physically handicapped students in terms of reported high school grades. Further, the differences between these groups and the poverty level students was very small with modal and handicapped students having somewhat better grades. The largest difference between the groups was in terms of percentages reporting grades of A+, A, or A- in high school--17% of the modal students and 11% of the poverty level students. If one gives credence to the previous finding that poverty level students come from schools with poorer academic programs, and then further assumes that grading policies in such schools would be more liberal, this difference is magnified. The evidence does not support the popular view that only the high-achieving poor student attends college.

When students were divided into their ethnic subgroups, the trend holds: modal students in each ethnic subgroup report higher high school grades than poverty level students in that subgroup, as shown in Table 6-8 (although in some instances this difference was slight). The differences in percentages of modals and poverty level students reporting high school grades of B- or higher is more marked within some ethnic groups than others (the difference is particularly large for native Americans and orientals, and rather small for whites, blacks, and "others"). Discounting the oriental subgroup (a very small group), there is greater variability over racial classification in high school grades among the poverty level students than among the modal students.

Regarding accomplishments in high school (item 29), modal students were more likely than either physically handicapped or poverty level students to report having attained prizes, awards, or recognition in specific fields (scholastic, athletic, artistic, political, social/cultural, community service, or literary/oratory). The differences between these three groups were greatest in the area of awards for scholastic achievement.

Table 6-8

Percentages* of Respondents Reporting Overall High School Grades Higher Than C+

Ethnic Classification	"Disadvantagement" Classification	
	Poverty Level	Modal
Native American	56%	70%
Black	64%	66%
Mexican American	57%	64%
White	71%	73%
Oriental	60%	84%
Puerto Rican	57%	63%
Other	72%	73%
TOTAL	65%	70%

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*Percentages given are of those reporting grades higher than C+ within respondents of the cross-classified group (i.e., 56% of native American poverty level respondents).

This same basic pattern of differences between modal and poverty level students was observed when the respondents were further classified as to race (i.e., modals were more likely to have won awards in high school, especially scholastic ones); however, there were notable exceptions. White and oriental poverty level students were more likely to have won awards in high school than modal students from the same respective ethnic groups. This is consistent with the findings from the student interviews (see Chapter 7, Section H) and may suggest that societal pressures operate differentially within ethnic groups in determining which students follow a path of continuing education.

(3) General Cultural Activities

Item 48 (similar in form to the elementary school item) sought indications for participation in some 38 specific nonacademic cultural activities. For all but five of these activities, statistically significant differences ($p < .001$) were found among group responses. Only 12 differences, however, were of the magnitude to be considered practically significant (i.e., differences of the order of ten or more percentage points for the group conditional percentages).

For most of these comparisons, physically handicapped students responded quite similarly to the modal group (a response comparison pattern that was common throughout the questionnaire items); and the major differences occurred between these two groups of students on the one hand, and the poverty level students on the other. Physically handicapped students and modal students were more likely than poverty level students to have: (a) gone to plays; (b) traveled outside their home state; (c) had medical and dental checkups; (d) listened to a presidential address; (e) traveled by plane; or (f) played musical instruments. With the exception of the medical care difference, the data are supportive of other findings indicating lower exposure to "culturally enriching" experiences among poverty level youth.

Modal students were more likely than either physically handicapped or poverty level students to have: (a) put money in a bank; (b) made $50.00 or more for a week's work; (c) spent an entire night at a party or social activity; or (d) had dinner with a date. Differences between modal and disadvantaged students for these comparisons are likely related to available finances and job opportunities, while differences between modal and physically handicapped students could well be related to the physical constraints of the partially or fully disabled as related to earning power and social activities. This is further suggested by the fact that both poverty level and modal students were more likely than the physically handicapped to have won some office or leadership position in their high school.

The differences in nonacademic cultural activity participation between poverty level and modal students were further examined within the racial subgroups. The same patterns of differences between modal students and poverty level disadvantaged students were found for blacks, Chicanos, and "others." In fact, within these ethnic groups the differences were more pronounced than the overall differences between the modal and poverty groups. For the remaining ethnic classifications, differences between modal and poverty level students were considerably less pronounced but typically in the same direction. More importantly, perhaps, was the fact that there were sizable differences across racial groups within the poverty level student classification, with poor white students much more likely to have participated in the various cultural activities than any other racial group of poverty students. Of all the poverty level student ethnic groups, Chicanos and Puerto Ricans were, in the main, the least likely to have participated in the various activities. This may be due to differential exposure for these poverty groups in general or to differential social pressures and selection mechanisms within ethnic categories regarding educational continuance.

Another set of precollege variables is available from responses to item 34 of the questionnaire; the item requests information regarding the influence of eleven various key persons (e.g., counselors) and programs in the student's decision to continue his education beyond high school. Response to this item was unfortunately not particularly good (response rate ranged from 68% to 88% of all returned questionnaires); nevertheless, the results are interesting enough to warrant presentation. Response patterns for the various student classifications differed rather markedly on all eleven subitems. However, in general, each of the persons or programs list was regarded as more important by the poverty level students than by the modal students, and least important by the physically handicapped students. An obvious exception was "Special Facilities for the Physically Handicapped." This program was, predictably, of considerably greater importance in the college-going decision of the physically handicapped student than for either of the other groups.

Each of the persons or programs was ranked within group categories for relative importance, and these are given in Table 6-9. Several important features of Table 6-9 should be pointed out. First, it seems rather clear that parents provide the most influential input into the college-going decision regardless of the group considered (less than 20% of the physically handicapped students, 15% of the poverty level students and 10% of the modal students responded that parents had no influence). Further, special facilities for physically handicapped students is a very influential factor in their decision to continue their education (over 50% stated that this factor was influential in their decision, with almost one-third stating that it was a very influential factor). On the other hand, poverty level students viewed precollege programs such as Upward Bound and Talent Search as less influential in their decision to attend college--15% of the poverty level students stated that these programs were very influential in their decision, while over three-fourths stated they were of no importance. It should be noted, however, that only 22% of the poverty level students stated that they had participated in such programs. With this in mind, influence of these programs on those poverty level students who participated in them seems relatively strong. Additional analyses were performed for that subset of students who had stated participation in the program. Of those poverty level students who participated in these precollege programs, 71% stated that such programs were influential

Table 6-9

Relative Importance* of Various Programs and Persons in College-Going Decision for Modal and Disadvantaged Students

Program/Person	"Disadvantagement" Classification Physically Handicapped	Poverty Level	Modal
One or both parents	1	1	1
Other relative	6	4	4
One or more high school teachers	3	2	2
Counselor or guidance specialist	4	3	3
One or more friends	5	5	5
Representative of college	7	6	7
One or more college students	8	7	6
A clergyman	9	10	10
A coach	11	9	8
Upward Bound, Talent Search, or other special program	10	8	9
Special facilities for physically handicapped	2	11	11

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*Ranked according to the proportion within group answering that such person or program was "very influential" in the college-going decision (1 = greatest proportion, etc.).

in their college-going decisions. Some of the physically handicapped and modal students had also participated in precollege programs; and for these groups also, the programs were regarded as influential in the decision to attend college (44% and 54% respectively).

One should note, however, the marked similarity in the relative importance of the first eight sources listed[9] in Table 6-9. Considering only those first eight, and reranking the remaining numbers in Table 6-9 yields almost identical rankings within each of the three groups (as noted previously, however, the absolute degree of importance of any given source varies with the particular group considered).

Considering responses to this item with respondent's ethnic group taken into consideration often yielded very sparse data matrices; however, for the four major groups (native American, black, Chicano, and white), sufficient data were available for such comparisons. The general finding was that poverty-modal differences were smallest for white students and largest for the native American and Chicano subgroups. A peculiar type of reversal also occurred. While high school teachers and counselors seem more influential in the college-going decision of white poverty level students as compared to modal white students, the opposite is true for black, Chicano, and native American students. This could suggest a lack of counseling availability to the minority group poor; however, it may be another reflection of differential societal pressures for educational continuance within different ethnic groups.

Item 30 of the questionnaire requested information regarding any delay between high school graduation and college entrance. Based on 7,473 responses, physically handicapped students were least likely and modals most likely to have gone directly from high school to some postsecondary institution. For all three groups the major reason for not directly continuing their education was that they went to work. This same pattern of results was maintained when each ethnic group was examined separately; however, among the poverty level students, there were some marked differences among the various ethnic classifications.

(4) Summary of Precollege Differences

At the college gate, there exist some rather marked differences between the modal and the disadvantaged student. Differences between modal students and physically handicapped students are, however, considerably fewer in number and/or less pronounced, except along dimensions specifically pertinent to the physical disability. As compared to his modal peers, the poverty level student approaches his postsecondary education with less majority-culture sophistication (in both elementary and high school years), with poorer academic training but with similar grades from his schools, having attained fewer awards and honors, and having been less influenced in continuing his education by the teachers and counselors of his high school. The one notable exception to this pattern is the poor white student, who consistently exhibits less marked differences from the modal white student. That the poor white entering college appears less "disadvantaged" educationally does not necessarily represent a generalized lack of attention to the potential college-going population within different ethnic groups, but may reflect differential definition of the potential college-going population. It seems the rule, rather than the exception, that modal poverty differences are moderated when considering different ethnic groups. Further, it is often the case that even more marked differences are observed among students of different ethnic classification within a specific level of disadvantagement than between modal and poverty level students within a given ethnic category. This supports the widely held notion that disadvantagement is much more than a financially determined phenomenon. The preceding results would certainly suggest that ethnic classification (as well as a strong suspicion of an interaction) should be considered.

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[9] The last three programs and persons listed have particular implications for one or more of the three groups.

In general, however, it is quite clear (and intuitive) that input to special programs for disadvantaged students is considerably different than modal postsecondary input in terms of variables that are known to be related to success in postsecondary education. These differences should be taken into consideration in evaluating the success of such programs in terms of output variables.

5. Description of the Postsecondary Experience

Given the previously established differences between disadvantaged and modal college students, we turn to an examination of differences between the groups in regard to experiences while attending postsecondary institutions. As such, we will be examining throughout the process model as well as some intermediate output measures. The more long-term output measures (e.g., successful completion of postsecondary education, successful job placement, continuing graduate education, etc.) could not be measured directly with the sample of students considered.

The bulk of the items in the Student Questionnaire, in fact, concentrated on experiences that were unique to postsecondary education. Institution-specific factors should be quite influential on responses to these items, yet data problems previously documented preclude a within-institution analysis. The results presented herein may, therefore, reflect differences that are disproportionately influenced by institutional-specific factors (due to disproportionate representation in the final sample and the purposive nature of selecting institutions). To the extent that institutional influences are great (see section c below), biases in the aggregate analysis will probably be magnified.

The items may be grouped for consideration into logically related sets consisting of: (a) choice of institution and any educational discontinuance; (b) postsecondary performance; (c) facilitation; (d) extracurricular/social activities; and (e) self-perception, satisfaction, and plans. The presentation of the descriptive data below follows the order suggested by this listing.

a. Choice of Institution and Educational Discontinuance

Item 31 of the Student Questionnaire concerns any discontinuance of college education, once it had begun. The item was answered by 7456 respondents. Modal students and poverty level students showed only minor differences in response patterns to this item (as might be expected, more of the poverty level students had discontinued their education for financial reasons, but this was still only a small proportion of the total poverty level group--5%). The responses of physically handicapped students, on the other hand, differed from both of the other two groups. Almost 10% of the physically handicapped responded that they had discontinued their college education for a period of time due to health reasons, as compared to about 1% for the other student groups. The general finding of no difference between poverty level and modal students as to educational discontinuance held within all but three of the specific ethnic subgroups--native American, oriental, and Puerto Rican. For these groups there was a pronounced tendency (more so for the orientals than any other group) for poverty level students to be more likely to have discontinued their education. Within the poverty level classification some differences between ethnic groups existed, but the magnitude of such differences was not great.

Item 35 requested a rating of the importance of eleven reasons for choice of current institution. Numbers of students responding to these reasons ranged from 6148 to 7088. Statistically significant differences ($p < .001$) were obtained for between group response patterns on all eleven reasons for choosing college--yet only three of these were of a magnitude to be considered practically significant. Low cost was a more important factor in choosing their college for poverty level students than for either modal or physically handicapped students, as was closeness to home. On the other hand, a special counselor for the physically handicapped was a much more important factor for the physically handicapped student than for the other students. The four most important factors for choosing their college were the same within all three groups: availability of a desired academic program, academic reputation, propinquity, and low cost. The ranked importance of the various reasons for choosing their college for the three groups is given in Table 6-10.

Comparing the modal and poverty level students on responses to this item within ethnic classification yielded results quite similar to the general findings. Additionally, there were no gross differences between ethnic groups within either the poverty level or modal student classification.

While some differences in the absolute importance of reasons for choosing colleges exist between the groups, the relative importance of reasons within groups are similar. Nevertheless, sufficient differences exist to signal a differential self-selection process for the three groups which would have obvious implications for further analyses. Further, for the physically handicapped student and for some ethnic classifications of poverty level students, postsecondary education is more likely to be discontinuous.

Table 6-10

Relative Importance* of Various Reasons for Choosing a Postsecondary Institution for Modal and Disadvantaged Students

	"Disadvantagement Classification		
Reason	Physically Handicapped	Poverty Level	Modal
Closeness to home	3	2	3
Good academic reputation	2	4	2
Had courses or programs I wanted	1	1	1
Specific religious affiliation	9	8	9
Low cost	4	3	4
Good athletic reputation	10	9	8
Availability of fraternities or sororities	11	10	10
Coeducational enrollment	7	6	6
Small student body	6	5	5
Specific racial or ethnic composition of student body and/or faculty	8	7	7
Special counselor for the physically handicapped	5	11	11

*Ranked according to proportion of students within group marking the reason as a very important one. Ranks are 1 = highest proportion, etc.

b. Performance in Postsecondary Education

Several questionnaire items were related to postsecondary performance factors since this area was seen as one of critical importance to the study. Item 38 requested information regarding students' current (or proposed) major field of study. The results for this item are presented in Table 6-11. As can be seen from the table, differences among the three groups in terms of major field of study are small. The most popular fields for all groups are the social sciences and humanities with slightly higher proportion of physically handicapped students choosing such areas. There is also a slightly greater tendency for modal students to choose the hard sciences area, although this is nowhere near as great a difference as some sources have suggested. The major thrust of the data reported in Table 6-11 suggests, however, that differences between the three groups, in terms of major course of college study, are minimal. This general pattern of small differences held for modal poverty level differences within all ethnic groups. There were some marked ethnic group differences within both poverty level and modal categories; namely, white, oriental, and Puerto Rican students were two to four times as likely as students from other ethnic groups to be majoring in the hard sciences area.

Another item regarding specific content area of studies was item 37. For this item, however, the focus was shifted to the amount of difficulty students had experienced with courses in particular areas during their freshman year. Numbers of students answering this item ranged from 6,974 to 7,385 depending on the subitem involved. With the exception of physical education courses, which were generally not taken by physically handicapped students (and perceived as difficult when taken), there were no sizeable differences among physically handicapped students, poverty level students, and modal students in terms of proportions taking courses in the specific content areas or in terms of perceived difficulty among those who took such courses. This same lack of difference was observed between poverty level and modal students when controlling for ethnic group of respondents. Further, no notable ethnic differences were observed within the poverty level or modal student groups.

To the extent that these three groups of students are majoring in similar content areas, took the same types of freshman year courses, and experienced the same amount of difficulty with such courses, the more meaningful will be any later comparisons of scholastic/achievement factors between the groups. We will not, in other words, be comparing one group, the members of which are studying primarily in an "easy" content area, with another group, the members of which are mainly concentrating in a more difficult content area. It should certainly be pointed out, however, that there is no guarantee from these data that students from the different groups took the same types of courses within the different content areas (i.e., some groups may have taken remedial courses and introductory courses with greater frequency than the other groups). Further, despite many protestations to the contrary, it is not the case that the "quality" of a course (or area of study) is consistent from one institution to another. Still, we are on firmer ground for such subsequent comparisons than would have been possible had marked group differences existed on these two previously discussed items.

Table 6-11

Percentages of Students with Specified Current or Proposed Major Fields of Study

	Student Classification		
Major	Physically Handicapped	Poverty Level	Modal
Hard Sciences (Biology, Physical Science, Mathematics, etc.)	9%	9%	13%
Soft Sciences and Humanities (Social Sciences, History, Humanities, History, Arts, etc.)	42%	34%	37%
Education	9%	14%	13%
Professional (Business, Engineering, etc.)	24%	29%	26%
Technical (Electronics, Medical, Technology, Plumbing, Carpentry, Welding, etc.)	7%	4%	3%
Undecided	8%	10%	8%
Respondent Sample Size	310	3183	3976

Item 42 requests information concerning the frequency with which students had engaged in specific academic related activities during the most recent semester. Some differences were found among the three groups; and while they were typically small, they were relatively consistent. Poverty level students were more likely than either the modal students or the physically handicapped students to have: (1) read a single assignment three or more times; (2) rewritten a paper before turning it in; (3) failed a course; (4) stayed up all night working on studies; (5) read something for a course that was not required; (6) consulted a teacher or counselor about academic work; (7) received help from a tutor; (8) made a top grade on a test; and (9) spent more than two hours at one time in the library. These results, indicating an orientation toward greater attention to scholastic endeavors among the poverty level students, could certainly suggest a higher level of academic achievement motivation among this group (or possibly a greater need for greater attention to academic work). In any event, the poverty level student seems to be working harder at his course work than either the physically handicapped student or the modal student. There is also a suggestion that academic achievement is more variable among the poverty level students (note that greater proportions of poverty level students both failed a course and made top grade on a test).

When the data were reexamined controlling for respondents' ethnic group, the pattern described above was generally maintained and few ethnic group differences were observed within the poverty level or modal subgroups. There were two notable exceptions. Puerto Rican students and native American students showed a pattern of responses exactly opposite to the general pattern in all areas except those of failing a course and consulting someone regarding academic work.

Another questionnaire item relating to additional work in the academic-scholastic area was item 49. This item requested information concerning extent of reading in specific areas outside of class assignments. For eight of the ten specific areas, outside reading was consistently greater for the handicapped and poverty level students than for the modal students; with physically handicapped students reading more in every category than any other group. Differences were, however, small; and nonresponse ran as high as 20% for some areas. The only two areas in which modal students indicated more frequent outside reading than poverty level students were "humor" and "science fiction." In terms of poetry, novels, plays, scientific articles, histories, politics, biographies, and essays, the poverty level student indicated a higher frequency of outside reading than the modal student--this would add credence to the hypothesis previously advanced regarding higher motivation among the poverty level students and certainly supports the fact that poverty level students are working harder at their education. Examination of responses to this item within ethnic categories revealed only two notable departures from the general trend and only minor differences within the poverty level and modal categories. The two exceptions were again in the native American and Puerto Rican subgroups, which showed a reversal from the general trend (i.e., for these groups modal students tended to do more outside reading). Speculation as to the reasons for this reversal would be unsound; however, it should be kept in mind that the Puerto Rican subgroup was relatively small and thus susceptible to larger error variance in the estimates.

Item 29 requested information regarding special prizes, awards, or recognition received in college in several areas. Proportions receiving awards in any of the groups were typically less than 5% and did not differ substantially among the groups. One exception was in the scholastic area, for which 13% of the total sample stated they had received awards while in college. Differences between modal students and the two groups of disadvantaged students were minimal for awards in scholastic achievement. Examined within ethnic classification, modal poverty level differences remained minimal; however, differences among students of different ethnic classifications were rather large in the scholastic recognition area. Oriental and white students were twice as likely as other students to report having attained some form of scholastic award or recognition (this was true within both poverty level and modal classification).

With the differences noted above in mind, we now turn to group differences in academic achievement as reflected in reported college grades. This information was obtained from Item 21 of the Questionnaire (N = 7353). As with reported high school grades, extremely small differences existed between the grades reported by modal students and those reported by physically handicapped students. It was again the case that when comparing the total group of modals to the total poverty level group, grades tended to be somewhat higher for the modal students. A comparison of modal and poverty level students within ethnic group classification is given in Table 6-12. From this table, it can be seen that substantively higher grades among modal students as compared to poverty level students is evident only for the native American and Mexican American subgroups; however, ethnic differences within the various categories of disadvantagement are much more pronounced. The small difference between modal and poverty level students, then, could be nothing more than a manifestation of differential ethnic representation in these two categories. It is instructive to compare the results of Table 6-12 with those of Table 6-8 (which gives a similar breakdown in terms of high school grades). The pattern of differences between groups, either between poverty level and modal students within a given ethnic classification or among ethnic subgroups within the poverty level or modal student classification, are quite similar. As is usually the case, overall grades in college are not as high as overall high school grades, yet the differences in proportions of students obtaining A's and B's remain quite constant in whichever group one cares to make the comparison (the oriental poverty level group, the Mexican American modal group, and the "other" modal group are noticeable exceptions). The data do suggest that relative advantages/disadvantages in academic achievement are not magnified in the college experience; however, there is little indication that such differences are reduced, even though it has been indicated that poverty level students work harder at their studies. It should be recalled at this point that control for quality of high school or college has not been taken into consideration here. To the extent that influences of these additional dimensions of educational quality are not independent and/or randomly distributed in the various subgroups (such random distribution has likelihood approaching zero), the findings may be challenged. This, of course, is related to the general case of noncomparability of grades at different institutions (either high school or postsecondary). Thus, in aggregation of the grades of groups over different institutions, some lack of comparability will be obtained.

Table 6-12

Percentages* of Respondents Reporting Overall Postsecondary Grades Higher Than C+

	"Disadvantagement" Classification		
Ethnic Classification	Physically Handicapped	Poverty Level	Modal
Native American	**	34%	47%
Black	37%	41%	43%
Mexican American	**	39%	52%
White	62%	63%	64%
Oriental	**	60%	57%
Puerto Rican	**	32%	32%
Other	**	68%	56%
TOTAL	57%	47%	56%

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*Percentages given are of those reporting grades higher than C+ within respondents of the cross-classified group (i.e., 34% of native American poverty level respondents).

**Insufficient numbers to obtain stable estimates.

The findings regarding scholastic/achievement factors in the college experience would indicate that differences between physically handicapped students and modal students are relatively minor (this lack of difference between the two groups in question has been a persistent one throughout our data analysis). The only difference of interest was that physically handicapped students tended in general to read more noncourse-related material of a serious nature than did the modal students. Differences between poverty level students and modal students are only slightly greater. Noting that college major field of study, freshman content area courses taken, and relative difficulty with such freshman courses were quite similar for the two groups, differences in academic achievement, as measured by reported college grade, did exist between modal and poverty level students within some ethnic groups and were quite similar in pattern to the differences observed in high school grades. This finding is compounded by the suggestion that poverty level students seem to have greater academic achievement motivation and work harder at their courses. Thus, as we have observed with regularity in these analyses, differences between modal students and poverty level students on this variable is moderated, to varying degrees, by the students' ethnic classification. Moreover, differences in academic performance, in general, seem greater among students of differing ethnicity within the poverty level group than between modal and poverty level students within a given ethnic classification. For academic factors, as well as others considered to this point, any "disequalization"[10] of the student in terms of prior societal influences seems to be more a function of ethnicity than of poverty. Nevertheless, given the disequalizations present on entry to college and the stated added attention to his studies, the poverty level student, in general, tends to maintain the same position in academic achievement relative to his modal peers of similar ethnicity that he held in high school. This indicates that what differences have been found at the postsecondary level are easily explained by similar differences at the high school level. There are, of course, individual differences among poverty level students and modal students. The correlation between reported high school grades and reported college grades for all respondents was only .39, varying only slightly for the different groups of interest (with the exception of poverty level orientals, where r = .53, the within group correlations range from .27 to .43).

c. Facilitation of Student Needs

Having observed few differences in postsecondary performance between modal and disadvantaged students (more precisely, few differences that could not be explained by differences already existing at the high school level), it would seem a logical step to examine the extent to which needs of the disadvantaged students are facilitated in their postsecondary experience. Given their relatively equal performance, one would expect facilitation of the disadvantaged groups to be at least equal to that of the modal student. In fact, such facilitations may be enabling the disadvantaged student to hold his own with his modal peers. Our discussion of facilitation will consider two major areas. The first area is specific to financial facilitation and has particular bearing to the poverty level student. The second area of consideration is concerned with the more general academic and social areas.

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[10] C. S. Stone preferred the term "disequalized" to "disadvantaged" in that the former term suggests active external influences leading to the condition being described rather than the passive internal connotations of the latter term.

(1) Financial Matters

Items 9 and 13 of the questionnaire seek specific information relating to the student's financial and work arrangements. Item 9 requests information regarding the hours per week that students work for pay. There were only minor differences between working modal students and working poverty level students in terms of number of hours of weekly outside work. Both of these groups, however, worked considerably more often than the physically handicapped student (as would be expected). Poverty level students were a bit more likely than modal students to hold a job. Within most student ethnic groups, the differences between poverty level and modal students' working hours were also minor; however, there was a marked tendency for larger proportions of poverty level students to work at a part-time job among white and oriental students.

Item 13 listed 20 sources of financial support and requested students to indicate the extent of support received from each source. The problem of nonresponse to the subitems of this questionnaire item was rather severe, with up to 48% nonresponse in some cases. It is not unreasonable for this type of item, however, to assume that a nonresponse indicated no support from the specific source (even though a response category "none" was supplied). Such an assumption has been made in the presentation of the results. Percentages of students within the various categories of disadvantagement stating receipt of some support from each of the sources is given in Table 6-13. It can be seen from the table that funding pattern for students' education is related to disadvantagement category. The most likely source of funds regardless of student classification appears to be parents, guardians, or other relatives. Over half of each group indicates some financial support from this source, but the proportion is considerably larger for the modal students. For modal students the next most likely sources are personal savings and off-campus jobs. Poverty level students, on the other hand, indicate greater support from Educational Opportunity Grants, Work-study programs, and NDEA loans. Physically handicapped students tend to utilize state or government grants and personal savings. As, can be seen, the physically handicapped and modal students exhibit a much more similar pattern of financial support than does either group when compared to the poverty level students. A further analysis of the data revealed that poverty level students showed both a greater spread of number of support sources and a higher average number of support sources than either the modal or physically handicapped groups.

The support pattern differences noted above between the modal and poverty level students were further examined within specific ethnic groups. Greater support from family for the modal student was consistent within each of the groups considered; however, there were differences among ethnic groups in percentages receiving such support within both the modal and disadvantaged

Table 6-13

Percent of Students Receiving Some Financial Support from Specific Sources

Source of Support	Physically Handicapped Students	Poverty Level Students	Modal Students
Parents, guardians, or other relatives	57%	53%	73%
Wife or husband	8	7	8
Off-campus job	18	24	31
Work-study program	17	40	22
On-campus job (not work-study)	9	7	9
Tuition remission	12	9	6
Academic scholarship	10	15	18
Athletic scholarship	2	4	3
Other scholarship assistance	18	13	13
GI Bill, ROTC, or other military associated assistance (not loan)	8	9	7
Educational Opportunity Grant	18	45	21
Social Security Survivors Benefits	10	9	5
Other state or government grant (gift)	29	12	9
College grant (gift, not scholarship or loan)	8	14	9
National Defense Student Loan (NDEA)	17	35	25
Federal Insured Loan	4	5	5
Other state or government loan	4	5	5
College loan	5	7	5
Private loan	3	3	4
Personal savings	26	22	32
Number of Cases	321	3283	4086

categories with oriental and white students more likely to receive such support and native Americans and Puerto Ricans least likely. Oriental and white students were also more likely to hold off-campus jobs within both the modal and poverty level group, but modal poverty level differences in likelihood of off-campus jobs was not evident when controlling for ethnic group. A greater proportion of poverty level students in work-study programs held within all ethnic classifications. Within both the poverty level and modal student groups, black students were most likely (and native Americans least likely) to be receiving support from a work-study job. Proportions of students receiving EOG funds were greater among poverty level students regardless of racial group considered. Further, within the poverty level group there was remarkably small variability of the proportion receiving these funds among different ethnic groups. A greater likelihood for poverty level students to have NDEA loans was evident within all ethnic groups except the Puerto Ricans, where there was a slight reversal (recall, however, that this is a very small group and subject to sizeable estimation error). Within the poverty level classification, oriental students were almost four times more likely to have NDEA loans than were native Americans (44% and 12% respectively); however, there were only small differences in the proportions obtaining such loans among the remaining ethnic groups. The proportion of modal students receiving support from personal savings was greater than that of the poverty level student group. White students were much more likely than any other ethnic group to rely in part on this source of support.

One additional analysis of poverty level/modal differences in financial support examined the proportions of students in each group receiving some support from "jobs," "scholarships," "grants," and "loans." It had been pointed out by various project directors contacted during the course of this study that disadvantaged students have to rely too heavily on loans and jobs while not being supported as fully as they should be by scholarships and grants. Information regarding this question is suggested by the entries in Table 6-13, but it should be considered that the support sources in this table are not necessarily mutually exclusive. The analysis needs to consider what proportion in each group receive some support from any one of the several sources listed which falls within one of the categories considered here. It was found that there was no difference in proportion of poverty level students and that of modal students receiving some support from a "scholarship" of some type (34% of each group indicated such support). On the other hand, poverty level students were more likely to hold some type of job in support of their education through some type of loan (47% and 38% respectively). The most frequent support source for poverty level students, however, is some form of grant. Among poverty level students 68% list some support from one or more grants; this figure compares to only 38% among the modal students. These relationships were quite consistent when the data were examined within specific ethnic groups; further, with but few exceptions (notably for the native American students and white students), there were only relatively small differences across ethnic classifications within both the modal student group and the poverty level student group.

It would certainly appear from these data that there are, as expected, some large differences between disadvantaged students and modal students in sources of support used to finance a college education. This, of course, is not in itself a remarkable finding since it has been documented elsewhere; and it is intuitively quite reasonable that such should be the case. In this context there are some ethnic group differences within the poverty level student group as well as the modal student group. Native American students seem to fare quite badly in obtaining support from any source when compared to other ethnic groups (this holds for both poverty level and modal students), while white students seem to have more success than other ethnic groups in tapping various support resources (again holding for both poverty level and modal students). The reason for this disparity is not immediately obvious, but its existence certainly points to a need among the native American poor that is not being met.

In regard to financial matters, the obvious fiscal needs of poverty level students are being facilitated. The degree to which these needs are being met cannot be answered from these data. While grants are a more common support source than loans for poverty level groups, we have not shown that the amount of financial aid from grants is greater than that from loans. Almost half of the poverty level students have assumed some form of loan in order to continue their postsecondary education. Such loans, even for small amounts, may be perceived as staggering obligations when seen through the eyes of one from poverty origins.

(2) Other Institutionally Provided Facilitation

Another matter for consideration in terms of possible differences between modal and disadvantaged students is the extent to which members of the three primary groups of interest are served by various student service activities provided by the colleges as well as the students' evaluation of such activities. Item 44 of the questionnaire was designed to elicit such information regarding thirty different service activities.

Table 6-14 gives the proportion of students from the modal, poverty level, and physically handicapped groups who participated in the various service activities. The determination of this proportion proceeded somewhat differently from previous determinations. In answering Item 44 of the questionnaire, respondents were first asked if a specific service activity was provided at their institution. If their answer was "yes," they were asked whether or not they had participated in the service activity. Nonresponse could, therefore, be determined by two responses. If a student did not specify whether or not the service was available, then he was considered a nonrespondent. If a student specified that the service was not provided, then his answer as to the participation was assumed to be "no." If the student specified the service was available and did not answer as to his participation, his answer was assumed to be "no."

It is noteworthy that there were sometimes sizeable disagreement among students within institutions as to whether a particular service was available at the institution. This matter will be discussed more fully below under institutional analysis. Clearly a student will not be served by a program on

Table 6-14

Proportion of Students Participating in Specific Activities of Student Service

Activity	Student Classification		
	Physically Handicapped	Poverty Level	Modal
Tutoring by other students	31%(291)*	38%(2980)*	26%(3798)*
Tutoring by faculty	23 (278)	30 (2775)	25 (3617)
Professional counseling for personal problems	23 (285	23 (2851)	19 (3713)
Professional counseling on job or career choices	25 (282)	27 (2847)	24 (3699)
Professional counseling on academic problems	35 (281)	31 (2787)	29 (3652)
Professional counseling on financial problems	28 (280)	47 (2802)	32 (3634)
Remedial courses	9 (260)	13 (2511)	9 (3367)
Student loan or scholarship	36 (287)	61 (2883)	48 (3716)
Work-study program	24 (276)	50 (2765)	29 (3602)
Student health services	54 (282)	38 (2645)	45 (3518)
Help in choosing courses and planning my program of study	65 (288)	65 (2837)	70 (3719)
Independent study	21 (283)	27 (2662)	21 (3532)
Honors program	9 (272)	11 (2644)	9 (3495)
Cooperative work programs	5 (267)	7 (2487)	4 (3262)
Courses or programs in reading improvement	10 (280)	26 (2779)	17 (3593)
Courses or programs in improving writing skills	23 (278)	22 (2717)	20 (3550)
Assistance in finding housing	12 (275)	13 (2697)	11 (3553)
Assistance in finding part-time employment	17 (283)	25 (2793)	20 (3646)
Reduced course load	18 (269)	16 (2584)	14 (3432)
Heritage in minority groups	11 (266)	16 (2603)	12 (3404)

Table 6-14 (cont'd)

Activity	Student Classification		
	Physically Handicapped	Poverty Level	Modal
Help in deciding whether to go to graduate school or not	9 (276)	13 (2787)	9 (3583)
Help in choosing a graduate school	6 (270)	9 (2725)	6 (3535)
Help in learning how to study more efficiently	17 (271)	30 (2786)	20 (3565)
Having faculty of differing racial or ethnic background	28 (277)	29 (2756)	28 (3599)
Help in improving skills in working with numbers	19 (270)	21 (2683)	15 (3496)
Instruction or good advice on how to do well on tests	23 (270)	33 (2711)	24 (3522)
Help in finding a job after college	7 (272)	10 (2687)	7 (3519)
Having classes with small numbers of students	64 (281)	56 (1559)	64 (2336)
Having a counselor of your own race or ethnic group	32 (274)	44 (1209)	41 (1483)
Opportunities to get to know the faculty	47 (278)	43 (1205)	49 (1770)

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*Numbers in parentheses are numbers of cases on which proportion is computed.

his campus if he does not know of the existence of that program. Moreover, it should be kept in mind in interpreting any results of differential participation that, while greater participation in an activity by some group may indicate greater availability of the service or activity to that group, it may also indicate, on the other hand, that the group in question is in greater need of that service or activity.

Table 6-15 shows that, in general, poverty level students indicated a higher degree of participation in the various activities than did either the physically handicapped or modal students. This differential participation was particularly large in terms of: professional counseling on financial problems; student loan or scholarship; and student work-study programs (results which are consistent with findings reported in the previous section). Somewhat greater participation by poverty level students than by the remaining groups was also observed for: (1) tutoring (both by students and professors); (2) professional counseling on job or career choices; (3) remedial courses and courses on reading skills development; (4) independent study and honors programs; (5) assistance in finding part-time employment; (6) help regarding decision for graduate education and choice of graduate school; (7) help in locating a job after college; and (8) help or advice on becoming "test wise" or studying more effectively. The poverty level group also indicated a greater relative frequency of having a counselor of similar ethnic group, having professors of differing racial/ethnic backgrounds, and participation in classes on heritage of minority groups (but differential representation of ethnic groups in the three groups coupled with low frequency of participation by white students in these specific activities easily explains such differences).

There were exceptions to the general pattern described above; the major one being those activities in which both physically handicapped and poverty level students indicated greater degree of participation than did modal students. This was the case for: (1) professional counseling for personal and academic problems; (2) programs to improve writing skills and number skills; and (3) reduced course load. Further, physically handicapped students indicated greater participation in student health services and classes of small size than either modal or poverty level students.

In a further breakdown of the data for comparison of modal/poverty level differences within ethnic classification a somewhat different approach was used. No imputation procedures were used and only the responses of students who perceived the activity as existing at their school (and who subsequently answered the participation equation) were used. It was felt that in making ethnic group comparisons strict reliance on the data as opposed to imputing responses would be the more prudent approach despite the attendant data shrinkage. Nonresponse (in this sense) to the participation questions ranged from a low of 19% for "student loan or scholarship" to a high of 62% for "cooperative work programs"; with median nonresponse rate at 48%. In view of this pattern of low response, (especially when considering prior data shrinkage due to insufficient data for classification by race or financial status and the relatively small sample sizes for some ethnic groups), comparisons within ethnic group was limited to

Table 6-15

Proportion of Those Students Participating in Special Activities of Student Service Who Find Such Activities Helpful

Activity	Student Classification					
	Physically Handicapped		Poverty Level		Modal	
Tutoring by other students	90%	(100)*	89%	(1424)*	88%	(1221)
Tutoring by faculty	94	(74)	88	(1075)	90	(1095)
Professional counseling for personal problems	86	(77)	83	(920)	82	(901)
Professional counseling on job or career choices	85	(84)	84	(1018)	82	(1083)
Professional counseling on academic problems	86	(108)	87	(1055)	85	(1222)
Professional counseling on financial problems	82	(98)	88	(1520)	84	(1342)
Remedial courses	**		73	(558)	75	(484)
Student loan or scholarship	90	(118)	94	(1991)	94	(1937)
Work-study program	91	(77)	92	(1586)	91	(1201)
Student health services	86	(162)	81	(1240)	82	(1710)
Help in choosing courses and planning my program of study	85	(197)	89	(1979)	85	(2729)
Independent study	86	(71)	87	(904)	90	(871)
Honors program	**		72	(521)	72	(493)
Cooperative work programs	**		73	(415)	72	(288)
Courses or programs in reading improvement	**		85	(937)	81	(769)
Courses or programs in improving writing skills	84	(74)	82	(786)	83	(856)
Assistance in finding housing	**		70	(565)	69	(552)
Assistance in finding part-time employment	**		74	(927)	73	(930)
Reduced course load	**		80	(624)	84	(612)
Heritage of minority groups	**		75	(640)	77	(577)
Help in deciding whether to go to graduate school or not	**		80	(614)	82	(477)

Table 6-15 (cont'd)

Activity	Student Classification					
	Physically Handicapped		Poverty Level		Modal	
Help in choosing a graduate school	**		70%	(494)*	75%	(404)*
Help in learning how to study more efficiently	**		87	(1032)	84	(858)
Having faculty of differing racial or ethnic background	80	(84)*	78	(998)	83	(1131)
Help in improving my skills in working with numbers	**		81	(738)	83	(670)
Instruction or good advice on how to do well on tests	90	(72)	86	(1071)	89	(949)
Help in finding a job after college	**		75	(510)	74	(408)
Having classes with small numbers of students	96	(189)	95	(1718)	97	(2440)
Having a counselor of your own race or ethnic group	78	(106)	77	(1380)	85	(1587)
Opportunities to get to know the faculty	94	(141)	90	(1396)	93	(1907)

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*Numbers of cases on which proportion is based.

**Insufficient numbers for stable estimate.

those activities for which nonresponse was 33% or less, providing reasonably stable estimates. For those ten activities for which such comparisons were made,[11] no marked departure, regarding modal student/poverty level student differences, from the general findings presented above were observed within any ethnic classification. Within the poverty level group, however, there were some differences among ethnic groups in terms of participation rates, notably relatively less participation by native Americans and white students in tutoring activities and counseling activities.

For the subset of students who indicated participation in the various activities, further information was requested regarding the extent to which such participation had proved beneficial. The proportion of students (disadvantaged and modal) responding that their participation in various activities of student support had proved helpful is reported in Table 6-15.

Two features of the information presented in Table 6-15 are immediately obvious. First, there are no striking differences between the participating students regarding their perceptions of benefit derived from such participation. Secondly, overall perception of beneficial impact of participation is quite high. As could have been anticipated, participants perceived "getting to know the faculty," "small class size," and "student loan or scholarship" [illegible] most beneficial. Perhaps more surprising is the fact that work-study programs are perceived as very beneficial. Comments from various special services program directors during the course of the study indicated that poverty level students were not particularly happy with work-study as a form of financial aid when compared to grants and loans. Such a conclusion is not supported by these data (such is not the case, however, with cooperative work programs). Those activities from which students feel they have received the least amount of help are "remedial courses," "honors programs," "cooperative work programs," "assistance in finding housing," "assistance in finding part-time employment," and "help in choosing a graduate school"; however, perceived helpfulness of such activities is still high in an absolute sense. Where numbers were sufficient, comparison of perceived helpfulness of the activities within ethnic classification yielded no pronounced differences either between poverty level and modal students controlling for ethnic classification or between ethnic groups controlling for family financial status.

Regarding students service activities, there thus appear to be differences in participation rate by disadvantaged students and modal students. For the physically handicapped students, differential participation seems greater in activities which would be supportive of the physical disability--help with personal problems and health needs, small classes, reduced course load--as well as in some academic areas--number skills, writing skills, academic counseling. It is reasonable to assume, however, that this greater participation by physically handicapped than by modals in these academic-related areas is more in terms of compensatory aids related to the physical handicap (notably loss of sight and hearing) than of compensation for academic deficiencies. Poverty level students on the other hand show greater participation than modal students in most activities listed. To the extent that financial disequalization has in fact led to educational disequalization, then the higher participation rate among the poverty level students is the desired outcome.

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[11] Including tutoring by other students; professional counseling for personal problems, job or career choices, academic problems, and financial problems; loans and scholarships; work-study programs; student health services; help in choosing courses and planning program of study, and having small class size.

Ethnic classification of students does not seem to be related to the general trend of greater participation rates among the poverty level students; yet some small differences in terms of propensity to participate in certain activities do exist among students of differing ethnic groups within the poverty level classification; specifically, participation seems somewhat lower for native American and white students.

Of those students who do participate in activities designed to facilitate their adjustment to the college environment, a substantial majority perceive the activities as helpful to them. There are no notable differences between the perceived benefits of modal participants and those of disadvantaged students. There are, similarly, no marked differences in perceived benefit from the activities based on ethnic classification.

In general, participation in programmatic services seems greater where the need in fact exists; and the activities prove to be quite beneficial in the eyes of student participants regardless of financial or ethnic status. Though not reported above, it is known that availability of programmatic elements of student services are greater in the sample of institutions under consideration than in the general population of institutions (selection of institutions insured that such would be the case, see Chapters 3, 4, and 5); however, it is also true that these institutions have greater proportions of disadvantaged students among their student bodies. It would thus seem that services are generally available to these students and that they are participating in them at greater rate than modal students. Absolute participation rate is not deemed a particularly good criterion for evaluation here for at least two reasons. First, the proportions reported have been computed after inclusion of students who do not see the activity as existing on their campus, and who, therefore, are obviously not participants.[12] Second, the need for specific help (other than the obvious financial assistance required by poverty level students) is a matter that varies from student to student.

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[12] Participation rates computed for the subset of students who saw the services provided at their institutions were necessarily higher for all groups than those reported in Table 6-15; however, the direction of participation rate differences were maintained.

Of some concern, however, is the indication of lack of information about services available. As stated previously, there was considerable variability in student's perception of existence of the specific elements within institution. With some regularity, all students at a given institution would perceive an activity's absence, but only rarely was there consistency regarding an activity's presence--with the usual state of affairs being that more students were unaware of a specific area of help than were aware of it. This may, in some instances, be the result of incorrect labeling of an activity by one or more students; but, in the main, this is seen as evidence of lack of information regarding the existence of the activity on the part of some students. The problem of institutional activities and programs designed to ease student adjustment may lie to some extent in the matter of obtaining student participation (there appears to be no problem in terms of perceived help to the participants), but it may also lie in lack of exposure. It is to both of these ends that SSDS programs are directed.

d. Social and Other Extracurricular Activities

Several items of the questionnaire requested information regarding relatively nonacademic components of the students' college environment including social activities. Item 17 was concerned with place of residence during college attendance. There were only minor differences in the residential patterns of modal students and poverty level students, and both these groups differed from the physically handicapped students regarding college residence (although the differences were not extremely pronounced). The major differences were that physically handicapped students were more likely, than the other two groups, to live on campus in a dormitory or apartment and less likely to live with parents. Considering constraints on mobility that may obtain with the physically handicapped, this finding is not surprising; it should be considered, however, that the bulk of the physically handicapped students came from primarily residential colleges. Some ethnic group differences were rather marked within specific categories of disadvantagement; however, poverty level/modal differences within any given ethnic classification were very small.

Item 41 of the questionnaire attempted to tap aspects of the student's ethnocentrism by asking for preferences of kinds of students with whom to associate. The responses of poverty level students in regard to ethnocentrism differed only slightly from the modal group, and neither of these two groups differed substantively from the physically handicapped group. When responses were examined controlling for ethnic group, there were again no major differences between poverty level and modal students in terms of their stated preferences of association. There were, however, some rather sharp differences across ethnic classification within both the poverty level group and the modal group. Oriental and Puerto Rican students--as well as students classified as belonging to an ethnic group "other" than the six major ones considered--were more likely to state no ethnic preference in their associations. Black students were more likely than any other ethnic group to prefer strongly to associate with people of their own race (almost 25% of the black students gave this response as opposed to less than 10% for most other ethnic group classification).[13]

Item 48 (discussed previously under the pre-college experience) also requested report of participation in 38 specific activities while attending a postsecondary institution. While statistically significant differences for differential experiences existed for 24 of the 38 activities, there were only 9 activities for which the differences were large enough (10 percentage points or more) to be of some practical significance. In college as in the pre-college experience, modal students were more likely than either physically handicapped or poverty level students to have attended an all-night social activity, to have had dinner with a date, and to have made as much as $50.00 for a week's work. Also, in these 38 areas, the postsecondary experience of modal and physically handicapped students were much more similar to one another than to that of the poverty level students. While in college, modal and physically handicapped students were more likely than the poverty level group to have: (a) traveled outside their home state; (b) put money in a bank (although more than half of the poverty level students had done so); (c) had physical or dental examination or treatment; (d) listened to a presidential address; and (e) traveled by airplane. The differences in the college extracurricular experience are, therefore, quite similar in pattern to those of the pre-college experience, with the physically handicapped less likely to participate in those activities which their disability would likely preclude and with poverty level students less likely to have participated in activities requiring capital outlay. On further examination of the data, controlling for ethnic group, a similar pattern of differences existed between modal students' experiences and those of poverty students, regardless of ethnic classification. There were also differences between ethnic groups within the levels of disadvantagement.

Item 36 of the questionnaire requested information as to relative amount of time spent on ten activities common to college life. The item was worded such that time spent on the various activities was to be relative to other students at the same institution. Nonresponse to these activities varied somewhat with numbers responding ranging from 6,650 to 7,470. It is interesting to note that the greatest nonresponse rate (over 20%) was to activity in political action groups--various information sources during the data collection period suggested that institutional representatives had directed some students not to answer questions of a political nature.

There were no major differences among the three groups in terms of time spent in studying, student government, school/community service, "Rap" sessions, community action, or political action groups. As would be expected, modal and poverty level students saw themselves as spending more time in athletic activities than did the physically handicapped students. Also, poverty level students saw themselves as spending more time in working than the modal students, who, in turn, saw themselves as working more frequently than did physically handicapped students. Modal students saw themselves as spending more time on dating and other social activities than did poverty level students, and poverty level students saw themselves more involved in these activities than did physically handicapped students. Such results are not surprising, but tend to provide consistency with findings already reported. The differences (and lack of differences) described above were quite stable within specific ethnic groups, and only very minor differences were observed between ethnic groups within the poverty level and modal student classifications; the one exception was that native Americans and oriental students showed a tendency to see themselves as less involved in the strictly social activities.

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[13] It should be recalled, however, that the sample of institutions contained a disproportionately large number of predominantly black (effectively all black in most instances) institutions.

In summary, there were some differences in extra-scholastic factors at the postsecondary level among the groups of students when classified according to disadvantagement. In some cases, as we have seen rather consistently before, the differences were overshadowed by ethnic group differences and in some instances were modified by consideration of specific ethnic groups. In the main, the same extra-scholastic group differences among the three groups of students exist for the college experience as existed for the pre-college experience. There does appear, however, to be a lessening of disadvantagement by race "interactions" in terms of these experiences. Most of the differences discussed under this broad heading of extra-scholastic factors give further credence to the internal consistency of questionnaire responses and to the validity of the data.

e. Self-Perception, Satisfaction, and Plans

A final area for consideration involves the more subjective matter of: (1) perception of self in relation to other college students; (2) satisfaction with various aspects of the postsecondary experience; and (3) short-term and long-term plans and goals. These variables, with their attendant psychological ramifications, were considered very important in the design of the study. They have obvious implications for educational development, and major differences between groups could have far-reaching implications for educational intervention programs. Each specific subarea will be examined below. These areas, of course, are quite strongly related to institution specific factors, and as such the findings reported here are doubtlessly masked by institution factors which considerably moderate differences between the groups under consideration. The strength of institutional factors on student satisfaction goals and self-perception and on differences between modal and poverty level students in terms of such variables is documented in Section 6-C.

(1) Self-Perception

Item 46 of the student questionnaire dealt with the student's perception of himself within the academic milieu. Table 6-16 shows eleven statements related to concept of self in the college setting and the percentages of

Table 6-16

Proportions* of Disadvantaged and Modal Students Having Specified Perceptions of Themselves

	"Disadvantagement" Classification		
Statement	Physically Handicapped	Poverty Level	Modal
I feel that most students here have better preparation for college than I have	36%	33%	25%
I have more worries than most students	44%	37%	26%
I am happy most of the time	68%	65%	72%
Most of my courses are pretty boring	25%	26%	28%
Most students here are very different from me in what they like and value	33%	35%	31%
I feel most comfortable here with students of my own racial or ethnic background	42%	50%	50%
Other students here seem to have a harder time getting good grades than I do	22%	19%	23%
My social life here is a very rewarding part of college life for me	41%	37%	41%
I am confident about my chances to achieve a satisfying and rewarding way of life after college	64%	64%	66%
This college is great in every way for me	37%	33%	31%
Most students score lower than I do on tests like SAT, ACT, etc.	22%	17%	23%

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*Numbers of respondents to these items are relatively stable, ranging from 298-307 in the physically handicapped group, from 2992-3109 in the poverty-level group, and from 3852-3923 in the modal group.

students within each of the three groups who indicated that such statements were generally true for them (the remaining response alternatives were "generally not true" and "uncertain," and responses of the latter alternative were basically equivalent from group to group). Data in this table are based on subsets of from 87% to 89% of the total respondent group of 8213; however, it should be recalled that this item was one in which nonresponse was proportionally greater among the disadvantaged group. The differences in Table 6-16 between modal, poverty level, and physically handicapped students are not dramatic but they are quite consistent, showing that modal students are less impressed by the college atmosphere (i.e., seeing more courses as boring and seeing the college as less than perfect) and have a generally more positive view of themselves (feeling better prepared, having fewer worries, being happier, etc.). The small but consistent differences between poverty level students and modal students were also observed when this comparison was made within ethnic classification. Some larger differences were observed, however, between ethnic groups within the modal and poverty level groups. Among the poverty level students, native Americans were more likely to view their college experience as great in all ways and as having few boring courses. Oriental and black poverty level students were at the opposite pole. Of the poverty level students white and black students (the former a bit more so than the latter) seem to have the most positive perceptions of their situation, while Puerto Rican and oriental students are considerably less positive. Among the modal students, whites were more likely to see their college as great in every way with few boring classes, with blacks again having the least positive view of their institution. Modal white students perceived their situation in considerably more positive manner than students in any other ethnic group among the modal students. Within the modal group, as was the case in the poverty level group, Puerto Rican students were the least positive in their perceptions. Black students were much more likely than students of other ethnic classification to state that they felt most comfortable with members of their own racial background (this was true for both poverty level and modal group comparisons). White students, both modal and poverty level, were twice as likely as students from any other ethnic group to see themselves as scoring well on standardized tests. For the perceptual framework of students, as has been the case in so many previous comparisons, interracial differences seem to be of considerably greater magnitudes than differences based on income, suggesting that perceived disequalizations emerge more dramatically along the ethnic rather than the financial dimension.

For immediate purposes as well as for subsequent analyses, it is desirable to reduce the self-perception indices of item 46 to a smaller number of variables that capture the flavor of the students' responses to the item. Such forms of data reduction often take the form of some weighted or unweighted combination of the subitems to obtain scale scores that possess more desirable quantitative properties. The technique used in data reduction for the self-perception subitems was relatively straightforward. As a first step, the data from these subitems were subjected to a principal components analysis in an attempt to determine the internal structure of the data.[14] The most satisfying solution was the two component solution which is reported in Table 6-17. The solution reported is not extremely effective in explaining internal variability (the two components accounted for only 35% of the variability within the eleven subscales) but is easily interpretable. [Note that these subitem scales are only 3-valued and as such will be relatively insensitive in tapping degrees of perceptual feelings.] Prior to the analysis, however, a nonmonotonic transformation of the coded values of responses was performed as they are not correctly ordered in the questionnaire (i.e., a response of uncertainty was assigned a value midway between extreme responses). The solution for component 1 suggests a label of "general positive self-perception," while the solution for component 2 suggests a positive "academic ability perception." As specified above, the principal components analysis was used only as a first approach to data reduction here. Due to restriction on the subscales, previously documented, it was determined that unweighted (or unit-weighted) sums of the items, suggested by the principal components solution, would be used. Prior to summing, scale reversals were performed for those scale items with negative relationships to the components.[15] It should be noted that subitem 6 was not included in either sum--see Table 6-17.

The problem of data shrinkage was avoided (to some extent) by data imputation. If a student responded to at least six (75%) of the eight items contributing to the first sum, then his response to any omitted item was estimated to be the intermediate value of 2 on the omitted scale (this corresponds to a response of "uncertain" and can be justified on fairly intuitive grounds). Approximately 551 students were added to the data base as a result of such estimation. The respondent was required to respond to all three of the items contributing to the second scale, before such a sum was considered valid; thus no data estimation was performed for the second scale.

It should be reemphasized that actual "factor scores" were not obtained for the self-perception scale scores. The scale scores obtained were simple unweighted sums (directionally corrected) suggested by the unrotated principal component solution. The range of the first sum was thus from 8 to 24 and

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[14] Principal components analysis is a common method of examining structure of data. Effectively, the analysis determines those independent linear combinations of subitems which successively account for the greatest amount of the previously unexplained total variability in the data. The technique is quite similar to principal factor analysis without including subitem unique factors in the factor model.

[15] The first scale score (General Positive Self-Perception) was simply the sum of the corrected subscale scores on the eight subscales having .30 or greater correlation with the first component. The second scale score (Academic Ability Perception) was the sum of the scores on the three subscales having .30 or greater correlation with the second component. Recent work by Robyn M. Dawes of the Oregon Research Institute has shown superiority in prediction of such equally weighted sums to "optimally" weighted sums on cross-validation with, in most cases, a different sample.

Table 6-17

Unrotated Two-Component Solution for Self-Perception Items*

Items	Components 1 (General Position Self-Perception)	 2 (Academic Ability Perception)
1. I feel that most students here have better preparation for college than I have	-.41	-.32
2. I have more worries than most students	-.50	--
3. I am happy most of the time	.62	--
4. Most of my courses are pretty boring	-.42	--
5. Most students here are very different from me in what they like and value	-.37	--
6. I feel most comfortable here with students of my own racial or ethnic background	--	--
7. Other students here seem to have a harder time getting good grades than I do	--	.73
8. My social life here is a very rewarding part of college life for me	.47	--
9. I am confident about my chances to achieve a satisfying and rewarding way of life after college	.58	--
10. This college is great in every way for me	.55	--
11. Most students score lower than I do on tests like SAT, ACT, etc.	--	.75

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*Values less than .30 are not included.

the range for the second sum was from 3 to 9. Directional correction of subitem responses makes for ease of interpreting the scale scores, with higher scores associated with more positive self-image.

The average values of these two indices of self-perception are given in Table 6-18 for the total group of physically handicapped and for modal and poverty level students by ethnic classification. These results reflect the previous interpretations of responses to the individual items. Modal students have more positive self-images than the physically handicapped or poverty level student. This holds for both the general and the academic self-perception scales. When comparison is made within specific ethnic groups, the same directional differences are observed between modal and poverty level students (black students providing the only exception). The size of the difference is magnified for oriental and Puerto Rican students. In general, differences in self image are much greater among different ethnic groups than between poverty level and modal students within ethnic groups. Analysis of these differences between poverty level and modal students within an analysis-of-variance factorial design (corrected for unequal cell sizes) showed significant differences due to both ethnic classification and financial classification (with greater effects due to the former factor) and no significant interaction.

(2) Student Satisfaction

Another affective area of critical interest regarding possible differences between disadvantaged and modal college students is that of satisfaction with aspects of college living. Item 43 of the questionnaire was directed to student satisfaction with 20 distinct aspects of the college environment. Students' responses to this item by group are given in Table 6-19. It should be recalled that this item was one in which nonresponse was greater among disadvantaged students than among modal students. Percentages entered in this table represent within group percentages of students stating that they were "somewhat" or "very" satisfied with the specified aspect of their college environment. From the tabled values, it can be seen that differences among the modal, poverty level, and physically handicapped students' responses are typically small. Exceptions are with (1) satisfaction with opportunity to participate in athletics, with which the physically handicapped students are considerably less satisfied; and (2) satisfaction with the money one has to "get along on," with which poverty level students are less satisfied. Both of these differences, however, are quite predictable ones. Among the remaining aspects of the college environment statistically significant differences ($p < .01$) were observed (Chi square) for only three subitems poverty level students were generally less satisfied than either of the other two groups regarding the personal qualities as well as the capability and knowledge of their teachers. On the other hand, poverty level students expressed greater satisfaction with their opportunities for getting extra help to stay in college and do well. This, of course, could reflect the poverty level students' greater reliance on (and appreciation of) financial assistance. It is interesting to note that excepting the athletic participation difference,

Table 6-18

Mean Values of Self-Perception Indices for Modal and Disadvantaged Students

Modal Students	General Self-Perception	Academic Self-Perception
Native American	17.4	5.4
Black	17.1	5.6
Mexican American	18.0	5.4
White	18.7	6.1
Oriental	17.9	6.0
Puerto Rican	17.2	4.9
Other	17.8	5.5
Total	18.2	5.9
Poverty Level Students		
Native American	17.8	5.1
Black	17.0	5.6
Mexican American	17.6	5.2
White	18.2	5.8
Oriental	16.4	5.2
Puerto Rican	15.7	4.7
Other	17.0	5.4
Total	17.5	5.6
Physically Handicapped Students	17.6	5.6

Table 6-19

Proportions of Students Who State They Are Generally Satisfied with Various Aspects of the College Environment

	"Disadvantagement" Classification		
	Physically Handicapped	Poverty Level	Modal
The capability and knowledge of most teachers	76%(314)*	71%(3159)*	78%(4001)*
The personal qualities of most teachers	69 (314)	62 (3120)	69 (3979)
The courses you have taken thus far	75 (312)	75 (3116)	76 (3972)
Any courses you must take in the future	49 (301)	49 (3047)	49 (3908)
The grades you have achieved so far	61 (310)	60 (3108)	64 (3962)
The opportunities you have for self-expression	61 (312)	61 (3094)	59 (3964)
The chances you have to complete your college program	75 (311)	72 (3107)	75 (3959)
Your personal and intellectual growth so far	75 (312)	76 (3103)	78 (3970)
The general attitude of most other students here	50 (311)	49 (3111)	49 (3961)
The opportunities for social life	46 (310)	49 (3078)	49 (3938)
The room or place you have to live in	64 (309)	63 (3074)	65 (3927)
Your ability to concentrate on your studies	51 (311)	55 (3104)	55 (3955)
The community in which this college is located	57 (310)	54 (3096)	53 (3960)
Your opportunity to participate in athletics	19 (306)	35 (3058)	34 (3909)
Opportunities for getting any extra help you need to stay in college and do well	54 (308)	60 (3098)	55 (3950)
The money you have to get along on	52 (307)	42 (3073)	54 (3931)
The rules and regulations of this college	51 (311)	49 (3070)	52 (3933)
The administration (dean, president) of this college	45 (309)	49 (3085)	46 (3954)

Table 6-19 (cont'd)

	"Disadvantagement" Classification		
	Physically Handicapped	Poverty Level	Modal
The kind of work and life this college is preparing you for	69 (311)	67 (3104)	67 (3954)
The relationships between students of different racial origins here	52 (306)	54 (3091)	51 (3917)

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*Number of respondents on which sample was based.

the modal and physically handicapped students show a more similar response pattern than do the modal and poverty level students. In the main, satisfaction for all three groups is relatively high.

When the data are analyzed within specific ethnic classification, more marked differences between modal and poverty level students emerge for three of the ethnic subgroups (native American, Puerto Rican, and oriental). It should be recalled that these groups are small, nevertheless the pattern of differences is quite consistent. For the Puerto Rican and native American groups, poverty level students seem consistently less satisfied than modal students in most of the twenty areas under consideration. For the oriental group, the situation is completely reversed. There are some very pronounced differences in responses to the twenty satisfaction subscales among the various ethnic groups within both the poverty level and modal student groups. White students, in general, are much more satisfied in most areas than are students of other racial extraction. This is true regardless of whether one is considering modal or poverty level students. Within the poverty level classification, Puerto Rican students are clearly the least satisfied subgroup. In the modal classification, Puerto Rican and oriental students seem least satisfied in more areas than the other subgroups.

Data reduction of the 20 subscales of item 43 was also attempted to obtain a more workable number of satisfaction scale scores. Student satisfaction indices consist of twenty separate five-valued subscales of satisfaction in specific areas. The twenty separate subscales were subjected to principal components analysis after appropriate rescaling of the coded responses. [Note that as the data are coded, the scale is increasing in dissatisfaction. A simple linear transformation rescales the items to be increasing in satisfaction. While such a rescaling is not strictly essential to the analysis, it produces variables that are more easily interpreted.] As a result of this analysis, it was found that four of the linear combinations of the satisfaction subscales could, in fact, account for 50% of the variability within all twenty items. As might be expected in items of this sort, with limited scale values, the first principal component (accounting for 31% of the variability in the 20 subscales) was a "general" component. This "general" component was a very close approximation to an equally weighted sum of the items. Simple unweighted or equally weighted sums of subscale items have long been used for data reduction purposes and have been supported in theory and practice. The principal component solution was, however, rotated within the four component space in an attempt to obtain more "interpretable" components. The orthogonally rotated component structure is given in Table 6-20. Given a vector of standardized observations on the 20 subitems, say $\underline{z}$, and the rotated structure matrix given in Table 6-20, say $\underline{A}$, a vector, $\underline{f}$, of four factor scores is obtained by $\underline{f} = (\underline{A}'\underline{A})^{-1}\underline{A}'\underline{z}$. The resultant scales can be labelled as follows: (1) satisfaction with general college atmosphere, administration, courses, and professors; (2) satisfaction with social activities and interpersonal relations; (3) satisfaction with specifically academic affairs; and (4) satisfaction with financial and persistence matters.

Table 6-20

Rotated Four-Component Solution for Satisfaction Components*

	Components			
Item	1 General Atmosphere Satisfaction	2 Social/ Inter-Personal Satisfaction	3 Academic Satisfaction	4 Financial/ Persistence Satisfaction
1. The capability and knowledge of most teachers	.75	--	--	--
2. The personal qualities of most teachers	.72	--	--	--
3. The courses you have taken thus far	.52	--	.50	--
4. Any courses you must take in the future	.43	--	.36	--
5. The grades you have achieved so far	--	--	.67	--
6. The opportunities you have for self-expression	--	--	.51	--
7. The chances you have to complete your college program	--	--	.52	.44
8. Your personal and intellectual growth so far	--	--	.67	--
9. The general attitude of most other students here	--	.65	--	--
10. The opportunities for social life	--	.67	--	--
11. The room or place you have to live in	--	.44	--	--

Table 6-20 (cont'd)

	Components			
Item	1 General Atmosphere Satisfaction	2 Social/ Inter-Personal Satisfaction	3 Academic Satisfaction	4 Financial/ Persistence Satisfaction
12. Your ability to concentrate on your studies	--	--	.62	--
13. The community in which this college is located	--	.61	--	--
14. Your opportunity to participate in athletics	--	--	--	.49
15. Opportunities for getting any extra help you need to stay in college and do well	--	--	--	.69
16. The money you have to get along on	--	--	--	.76
17. The rules and regulations of this college	.51	.43	--	.34
18. The administration (deans, president) of this college	.56	.47	--	--
19. The kind of work and life this college is preparing you for	.50	.38	--	--
20. The relationships between students of different racial origins here	--	.62	--	--

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*Values of less than .34 are not included.

The reduction performed was for the entire data set using standard subscale scores (e.g., each score in a subscale was expressed in units of standard deviation from the mean) producing satisfaction components with a mean of 0 and unit variance. Thus satisfaction component scores may be correctly interpreted as deviations from "average" satisfaction for the entire sample of respondents. While the scaling procedures used insure that a higher scale score reflects greater satisfaction (or less dissatisfaction), a negative score does not necessarily represent dissatisfaction per se but rather relative dissatisfaction as compared to other students in the sample.

To avoid severe data shrinkage due to satisfaction components, data imputation was performed in computing component scores in some cases. Specifically, if an individual responded to as many as 16 (80%) of the satisfaction subscales, his responses to the remaining items were estimated. A rather simple estimation was used--the score assigned to an omitted response was the mean scale value for all students responding to that subscale. This estimation technique added approximately 300 students to the data base who would otherwise have been excluded. The net result of this data reduction was four variables representing degree of relative satisfaction with four specific areas of college life.

The average values of the four indices of satisfaction for modal and poverty level students by ethnic classification are given in Figure 6-2. The figure reflects to a large extent the findings reported above; white students seem most satisfied, differences due to ethnicity are generally more pronounced than those due to the modal/poverty level dimension, and suggestions are present of interactions between ethnicity classification and modal/poverty level classification. These qualitative observations were substantiated by statistical analysis of the data in factorial analysis of variance design with correction for unequal cell sizes.

(3) Plans and Goals

Several questionnaire items related to long-term and short-term goals and plans. Item 40 of the questionnaire sought information regarding plans for continuing education after the current academic year. Responses to the item by the three groups of interest are given in Table 6-21. Based on 7,460 respondents, there was practically no difference in the response patterns of modal students and those of physically handicapped students regarding educational continuance plans, and only minor differences existed between these former two groups and the poverty level students. The largest difference observed between responses of the three groups was five percentage points. This existed between poverty level and modal students stating that they planned immediate continuance in graduate studies (14.5% and 1[illegible]6% respectively). This general pattern was quite stable within each of the specific ethnic groups, and there were only very minor differences in pattern between ethnic groups within the modal or poverty level groups. It is comforting to note that few students in any classification stated an intention

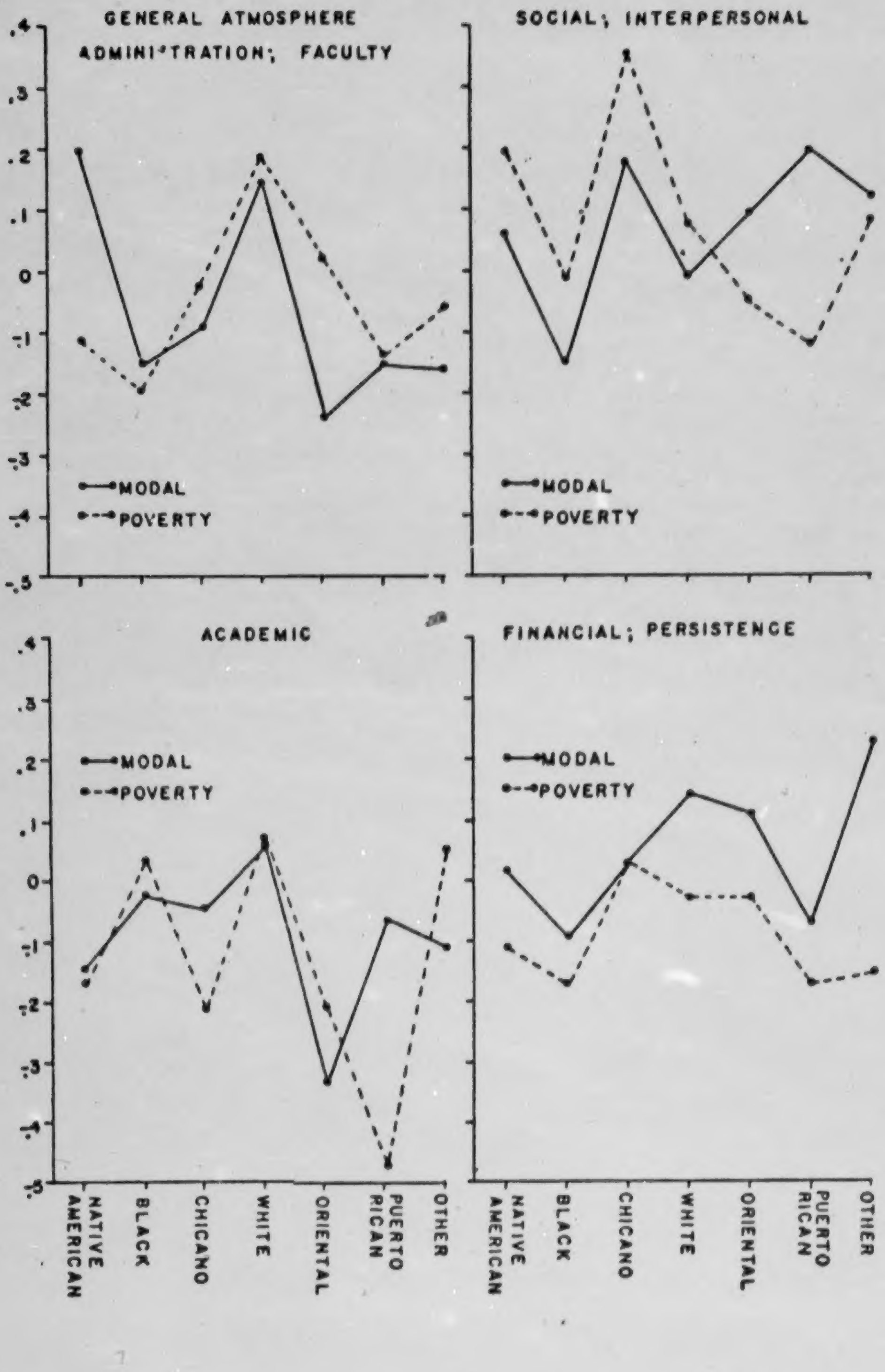

Figure 6-2. Mean values of satisfaction indices by ethnic classification for poverty level and modal students.

Table 6-21

Stated Plans for Educational Continuance for Modal and Disadvantaged Students

	Proportion Responding		
	Physically Handicapped	Poverty Level	Modal
I am seriously considering dropping out or quitting school for good	2%	3%	2%
I am considering transferring to another school or college before the end of my present program of studies	13%	13%	15%
I may drop out for a time, but still plan to complete my present program of studies at this institution and graduate some day	9%	10%	9%
I am fairly certain I will continue at this school without interruption until I finish	34%	38%	34%
I plan to continue study in a graduate program immediately upon completion of undergraduate work	18%	15%	20%
I plan to finish my undergraduate work, then someday I hope to continue study in a graduate program	23%	22%	20%
Number of respondents	310	3182	3968

to drop out of school permanently and that only about 10% entertained notions of dropping out even temporarily.

Another area important to consideration of differences among poverty level, physically handicapped, and modal students is that of long-term and short-term life goals. Questionnaire items 39 and 45 were designed to elicit such information. Both of these items, however, were ones for which students in the poverty level group were less inclined to respond than were students in the modal group. Item 45 requested the respondent to rate 11 long-term and short-term accomplishments in terms of their importance to him. The relative importance for these accomplishments within the three groups being considered are given in Table 6-22. The proportion of respondents in each group answering that a specific activity was valued was obtained and these proportions, based on total of respondents of from 7,106 to 7,207, were then ranked to obtain the relative importance of each accomplishment within group. While there were statistically significant differences among groups in terms of the actual proportions rating the various accomplishment "somewhat" to "very highly" valued, the ranked importance of these short-term academic goals are very similar among physically handicapped, poverty level, and modal groups (e.g., the accomplishment of winning a letter of position on a varsity athletic team was valued by considerably greater proportions of poverty level and modal students than physically handicapped students, yet within each group it was the least valued accomplishment). The agreement among the three groups is in fact a significant one when the ranked values are analyzed by the Friedman test. There is complete agreement among the groups in terms of the two most valued and two least valued accomplishments. Considering data for ethnic groups, no substantive differences were found between the modal students and poverty level students in percentages valuing the various accomplishments among the different ethnic classification. The variation of percentages in these comparisons across various groups was remarkably small.

Another questionnaire item seeking information regarding long-term career goals was item 39. Responses to this item by the three groups is given in Table 6-23. As in many of the previous comparisons, the responses of modal students and physically handicapped students were in greater agreement than were the responses of either of these groups and those of the poverty level students. Although a Chi Square test of this contingency table showed statistically significant differences in response pattern, the difference of poverty level students' goals from those of the other two groups were not at all pronounced; the greatest difference was only of a magnitude of less than six percentage points. The seven specific career goals shown in Table 6-23 were ranked within group in order of preference. It can be noted that the pattern of preference of specific careers among disadvantaged students is identical to that of modal students. This basic lack of difference between poverty level students' occupational goals and those of the modal students was consistent within the various ethnic classifications and there were only minor differences between ethnic subgroups within either the poverty level or the modal student classification.

Table 6-22

Ranked* Relative Importance to Students of Attaining Various Accomplishments

Accomplishment	"Disadvantagement" Classification Physically Handicapped	Poverty Level	Modal
Becoming the leader of a student group	9	8	8
Winning a letter or position on a varsity athletic team	11	11	11
Receiving recognition for a literary composition, art work, music, etc.	6	6	6
Making an original scientific discovery	7	9	7
Making Dean's List, Phi Beta Kappa, or similar academic distinction	5	5	5
Helping someone have a meaningful religicus experience	8	7	9
Becoming the owner or manager of a profitable business on or near the campus	10	10	10
Helping someone kick the drug habit	3	4	4
Helping someone in a real way who needs help	1	1	1
Winning a scholarship that would pay your full tuition and costs	2	2	2
Getting admitted to a good graduate school	4	3	3

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*1 = most highly valued, etc.

Table 6-23

Stated Career Goals of Modal and Disadvantaged Students*

Career Goal	Proportion Responding		
	Physically Handicapped	Poverty Level	Modal
An academic life (teaching, research, other scholarly work)	23% (1)	31% (1)	26% (1)
A business life	12% (3)	15% (3)	13% (3)
A professional life (doctor, lawyer, engineer, etc.)	20% (2)	16% (2)	20% (2)
A trained technician or craftsman	3% (6)	4% (6)	4% (6)
A life centered on some aspect of creative arts	6% (5)	5% (5)	6% (5)
A life centered on a home and family	11% (4)	8% (4)	10% (4)
A political life	3% (7)	2% (7)	2% (7)
Other	10% -	5% -	6% -
I have not given sufficient thought to this matter to say	12% -	16% -	14% -
Number of respondents	307	3185	3972

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*Figures in parentheses are the ranked relative preference within group for the 7 specific career goals.

The obvious conclusion from these data is that in terms of the plans, goals, and aspirations considered in the questionnaire, there were no major differences among the students in the sample, either on the basis of disadvantagement or race. The extent to which student aspirations and valued goals may be realized is yet another matter. The inability to continue along planned educational and career paths may become a harsh reality either through insufficient financial support on the part of poverty level students, the effects of institutionalized racism on members of minority groups, or physical limitations on the part of the physically handicapped. The plans reported, thus, may be somewhat optimistic. The lack of any noticeable difference between plans of modal and poverty level students (and the stability of this lack of difference for all ethnic groups) does show substantive promise for egalitarian education (to the extent that plans can be realized with equal probabilities). High aspirations are a notable and frequently documented characteristic of blacks. The real questions are: (1) were these students expressing aspirations or expectations; and (2) if these are expectations, how realistic are they? Only longitudinal research can answer the latter question.

f. Summary of Differences at the Postsecondary Level

In the foregoing analyses of throughput and intermediate output measures, comparison between modal and disadvantaged students have yielded some differences which may be summarized briefly.

- Only slight differences exist between disadvantaged students and modal students in regards to educational discontinuance or reasons for choice of college. The differences that exist are logically related to either financial convenience (on the part of poverty level students) or the matters related to physical disability (on the part of physically handicapped students).

- Disadvantaged students and modal students are being exposed to basically the same curriculum, experiencing equal difficulty or ease with their studies, and performing at more-or-less the same level academically, despite the fact that disadvantaged students seem to be working harder at their courses. The differences existing between college grades of modal and poverty level students are quite consistent with analogous differences existing at the high school level.

- The poverty level student in the postsecondary education institution receives a greater variety of financial support than his modal peer toward facilitating his fiscal needs. While greater proportions of the financially disadvantaged receive grants, greater proportions also must depend on work and loans to supplement their needs.

- In general, disadvantaged students are exposed in greater proportions to special facilitative services offered by the institutions. Like their modal peers who participate in similar activities the disadvantaged participants see these services as quite beneficial.

- Disadvantaged students differ from their modal peers along several dimensions of extrascholastic activities, showing less participation in some social and culturally enriching activities.

- Disadvantaged students, in general, have slightly less positive self-images and are somewhat less satisfied than their modal peers. The educational plans and aspirations of the two groups are, however, quite similar.

Moreover, three general trends have emerged in our comparison of differences between disadvantaged and modal students in postsecondary education.

- In general, the physically handicapped student is more similar to the modal student than is the poverty level student (in areas not specifically related to his disability).

- Differences between modal and poverty level students are typically much less than differences among students of differing ethnicity within either financial classification.

- General differences between poverty level students and modal students are frequently moderated by consideration of ethnic classification, producing an interaction between the two modes of classifying students. The implication of this finding to any poverty level/modal comparisons is quite obvious--the matter of ethnicity must be controlled either statistically or in study design (an attempt which fell considerably short in the present study) if such comparisons are to be meaningful.

C. Institutional Differences

As specified in our process model of program operation, it was pointed out that differences in external processes that impinge on the process under study was a major factor that could influence both process operation and output measures. One of the main forces operating on both programs for disadvantaged students and the students themselves is the host institution. There are many institutional features that could quite easily modify the throughput and output measures we have considered in the previous section (i.e., admission policies, institutionalized racism, college "climate," etc.).

It is therefore essential to determine the extent of the relationships among certain student characteristics and institutional characteristics prior to examining possible program effects. Two basic classes of analyses were performed: (1) examination of institution specific contributions to variability of student response and (2) examination of contribution to variability of student response due to institution type.

It may be recalled that institutional sampling was of a modified quota type taking into consideration various dimensions or facets of institutional characteristics in order to provide the desired heterogeneity of institutions along the various dimensions. It is to the possible "effects" of these specific institutional factors--which may interact with the student's classification as modal or disadvantaged, or with his ethnic classification, or both--that the analyses encompassed by (1) above are directed. The analyses included in (2) above involve comparisons of modal and disadvantaged students on specific responses along dimensions of institutional variability [e.g., SSDS participation; estimates of success in dealing with disadvantaged students; selectivity; residency provisions; institutional control (i.e., public or private); predominant ethnicity of student body; and highest offering (two-year or four-year)]. Additionally, it is quite reasonable to assume institutional specific "effects" on the students over and above any "effects" due to institution "type" along the dimensions used for sampling (since there is obviously additional variability of institutional style within these broader categorizations).

Such analyses, however, should consider the findings discussed previously in Section 6.B. Notably, it has been seen that there is strong indication of interaction between race and disadvantagement status for many of the student variables considered. This would dictate an analysis of institutional differences within level of student ethnicity and disadvantagement status. Such a demand, however, places some very limiting constraints on the type and number of analyses to be performed. In examining institutional differences by type, the problem of cell size does not become a critical one since more than one institution contributes students to a given cell of the design. On the other hand, the cell size problem becomes paramount when considering institution specific differences.

1. Preliminary Considerations

As reported in Sections 6.A and 6.B, there was considerable shrinkage in terms of target groups at the institutions (originally a target group was to contribute a sample of 15 students as a minimum) for both modal and disadvantaged student subgroups. From Tables 3-3 and 6-5 it can be seen that the number of target groups of such size shrinks from an anticipated 393 to an actual number of 169. This however is only one aspect of the shrinkage problem. To consider institution specific "effects," there should be at least two target groups at each institution considered, matched either on ethnic group or disadvantagement status.

As a preliminary step, cell size requirements were lowered to 10 students of a specific ethnic and disadvantagement classification within a given institution. It was felt that this was a minimum number for consideration since it was expected (and substantiated in actual analysis) that the missing data problem would cause even further shrinkage of these numbers. On the basis of a minimum cell size of 10, the number of comparisons which could be made holding either (or both) ethnicity or poverty status constant is given in Table 6-24. From this table, several data analysis problems are immediately obvious. First there are insufficient numbers of institutions having target groups which allow for a partial crossing of disadvantagement status and ethnicity (e.g., a crossing of poverty/modal and black/white students is possible at only four institutions). Since prior data analysis has already indicated the strong possibility of an interaction between ethnic classification and classification as modal or poverty level, the suggested analysis is comparison between groups on one of the classification dimensions within a specific level of the other dimension (e.g., comparison of modal/poverty level differences within a specific ethnic classification or comparison of ethnicity differences within either the modal group or the poverty level group). Using five as a minimum acceptable number of institutions for any such comparisons allows only 10 comparisons (within ethnic group and poverty or modal classification) in an examination of institutional specific "effects."

Prior to the examination of institutional specific influences, we must contemplate the variables to be considered. The reader now has some feeling for the tremendous mass of data available, and can appreciate the desire for reduction to a more manageable data set. More importantly, for our analyses of institutional influences, only certain subsets of items have immediate relevance; specifically a subset of the output/throughput measures discussed in Section B.5. We will choose for analysis those short-term output measures that would be indicative of student success.

Student success, of course, is a difficult concept to operationalize and measure in that it is many-faceted by nature. As a preliminary step toward modeling satisfaction in terms of questionnaire items, we view student success as reflected in the following criteria: (a) academic performance in college--with consideration of prior academic performance--(Item 21 of the Student Questionnaire); (b) student satisfaction (Item 43); (c) educational persistence (Item 40); and (d) student self-perception (Item 46). To be sure, this is a rather simplistic model of student success, and strong arguments can be made for inclusion of other criteria in the model that can be obtained from available questionnaire data (e.g., values, program usage, etc.); however, it is felt, in view of the influence which institutions could exert on the variables, that the criteria included encompass the major ones available in the data at hand. Further, the criteria selected have some advantageous scale properties that are not present for other questionnaire items that might be considered.

As moderators and correlates of student success, we see several types of factors as possibly critical: (1) disadvantagement status; (2) ethnicity; (3) institutional factors; (4) program availability, usage, and perceived benefit; (5) sex; (6) marital status; (7) veteran status, and (8) participation in precollege programs. This list is certainly not exhaustive. However, there are practical limitations on how far any finite set of individuals

Table 6-24

Numbers of Institutions for Which Comparisons of Specified Groups Could Be Made*

Comparison	Number of Institutions
Physically Handicapped and Modal White**	9
Within Ethnic Group	
Poverty Black and Modal Black	42
Poverty White and Modal White	38
Poverty Chicano and Modal Chicano	10
Poverty Native American and Modal Native American	1
Within Poverty Classification	
Poverty Black and Poverty White	9
Poverty Chicano and Poverty White	6
Poverty Native American and Poverty White	5
Poverty Black and Poverty Chicano	2
Poverty Black and Poverty Native American	2
Within Modal Classification	
Modal Black and Modal White	25
Modal Chicano and Modal White	12
Modal Chicano and Modal Black	5
Modal Native American and Modal White	1
Modal Oriental and Modal White	1
Modal Oriental and Modal Black	1
Modal Oriental and Modal Chicano	1
Crossed Design Classification	
Poverty Modal for Chicano and White	5
Poverty Modal for Black and White	4
Poverty Modal for Native American and White	1
Poverty Modal for Chicano, Black, and White	2

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*Under constraint of at least 10 persons in each group at an institution.

**In view of previous findings the appropriate comparison group for the physically handicapped student would seem to be the modal white student.

may be subdivided. Sooner or later the number of cells in a design (or the number of variables in a prediction equation) exceed the number of available individuals and resultant analyses are either incomplete or effectively precluded. For purposes of the analyses presented in this section, we will therefore restrict ourselves to three predictor variables: disadvantagement, ethnicity, and institutional factors. Further, we have restricted ourselves to four major classes of criterion variables by our operationalizing of student success.

We modify our approach, therefore, from the staggering number of possible permutations of criteria, covariates and contributing factors to a specific subset of variables within a simplified, but meaningful, model of student success. Within the set of criteria chosen, we may attempt further scaling. It should be noted that we have already discussed two scale scores for self-image and four scale scores for satisfaction based on the reduction techniques defined in Section 6.B.5.e (pp. 6-58 to 6-68). It can be noted from item 21 of the Student Questionnaire that the categories of grade reporting are monotonically decreasing in GPA; however, the metric has been distorted. The first scaling step was a simple conversion of reported grade category to an appropriate metric in the more familiar GPA mode.

Although not as straightforward, item 40 of the Student Questionnaire also lends itself to a scaling of educational persistence. The scaling of this item was a simple one, yielding four scale values that are monotone nondecreasing in reported persistence: (1) consideration of dropping out of school, (2) consideration of transfer from present school, (3) plans for completion of current undergraduate program, and (4) plans for graduate school. While neither of the two scalings were elegant, they provide meaningful indices for the criteria they respectively represent.

Given the abbreviated model of student success, there are many statistical approaches available to examine the relationships between the variables specified by the model. Our model specifies qualitative antecedent variables (ethnic and disadvantagement classification, institutional categorization) and quantitative criterion variables having at least ordinal scale properties. Given the study design and the simplified model, the most one can expect from any analysis is the discovery of relationships among the model parameters. The technique of analysis chosen for examination of institutional differences was multivariate[16] and univariate analysis of variance. While other analyses are also appropriate, it was felt that an analysis of variance approach would provide the most interpretable and suggestive results.

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[16] The multivariate analysis of variance is quite similar to the much better known univariate analysis of variance. Loosely speaking, while the latter technique allows evaluation of differences between two or more groups for a single criterion variable, the former technique evaluates differences between groups in terms of a vector of criterion variables. Thus, instead of comparing group means, one compares group mean vectors, and instead of dealing with the variance of a single variable, one deals with the covariance matrix of the set of variables considered. For a detailed development of this statistical technique, see Anderson, T. W., An introduction to multivariate statistical analysis. New York: Wiley, 1958.

The analysis of variance is a statistical tool which is usually employed in testing for "effects" in true experimental designs. The technique is not used in such a way here; rather, our use of the analysis of variance is more to show relationships between success indices of students and the institution which they attend and/or their race and disadvantagement classification. One might argue that the use of one or another form of regression analysis (with dummy variables for the qualitative antecedent classification variables) or multiple discriminant function analysis would be more appropriate. This is perhaps true in a rigorous statistical sense, but the use of an analysis of variance design provides a much more familiar framework for most readers and allows for a much easier examination and interpretation of interactions. It should be pointed out that in our use of analysis of variance, "main effects" are analogous to relationships between the success indices and the particular dimension examined (i.e., a difference in success indices between poverty level students and modal students would be appropriately interpreted as "success indices are related to classification of students on the basis of family income"). Interactions, on the other hand, are somewhat analogous to inequality of relationships within specified groups (i.e., an interaction of institution type with ethnicity would be appropriately interpreted as "The relationship between the success indices and institutional characteristics are different depending on the particular ethnic group considered"). Conclusions in terms of causality are in no sense warranted from these analyses.

For the analyses concerning institutional factors of the sampling plan, a fixed effect model was employed. However, for the institutional specific analyses, a mixed model is more appropriate, with "student group" as a fixed effect and institution as a random effect. Throughout the analyses, a least squares approach was taken due to the nonorthogonality of the design brought about through unequal cell sizes.

2. Institutional Specific Indices of Student Success

Intuitively one would expect considerable variability among institutions for certain indices of student success. However, this was not the major thrust of these analyses. The more germane issue was an examination of the possibility of interaction of institutional factors with modal/disadvantaged differences or with ethnic differences. Such interactions would have considerable implication for the study. If, in fact, it were found that differences between modal and poverty level success indices varied widely with the institution considered, then a strong indication would be present of institutional influence on relative success of the disadvantaged within certain institutions. In other words, variability of success indices over institutions in and of itself does not hamper to any large extent aggregate analysis (other than the obvious bias that would be introduced if certain disadvantaged or ethnic groups were more likely to attend types of institutions that are characteristically higher or lower than average regarding these indices--the self-selection problem) as long as this variability is consistent for the several distinct student groups considered. Interactions, on the other hand, would indicate that institutional factors were differentially related to success depending on the student group considered, for example, associated with high success among modal students and low success among the disadvantaged students and thus with a "success gulf" between the two groups. The disclosure of such interactions would suggest further analyses to identify what characteristics of institutions facilitate the relative success of poverty level and/or physically handicapped students.

The 10 comparisons suggested in 6.C.1 (p. 6-77), were performed for each of the four major categories of student success.[17] These analyses are reported separately below.

a. Student Satisfaction. As could be anticipated there was considerable variability among institutions in terms of the four satisfaction indices, indicating that, in general, students are more satisfied at some institutions than at others. Cell means for the four comparisons dealing specifically with modal/disadvantaged comparisons are given in Tables 6-25 to 6-28. A casual examination of these tables will reveal that variability over institution within comparison group is, in general, much greater than variability between comparison groups within an institution.

Marginal means for the specific groups of each of the ten comparisons are given in Table 6-29. Inspection of this table shows again what we have consistently observed throughout the analysis. When blocking by institution, it is still the case that differences between modal and poverty level students of the same ethnicity are considerably less than differences between students of different ethnic groups within the same category of financial status. These observations are substantiated by the statistical analyses summarized in Table 6-30.

For the comparisons of modal and disadvantaged students within ethnic classification, there were no statistically significant differences on the satisfaction indices. There were, however, significant institutional effects, and in the case of the physically handicapped comparison, there was a significant interaction of institution with group. Where no interaction was present the data were reanalyzed using the pooled residual and within cell error as an error term. In no case did such reanalyses alter the results and thus they are not reported here.

For ethnic comparisons within the modal or poverty level categories, the picture was somewhat changed. It was again the case that institutional effects were quite prevalent--only in the case of the Chicano and black modal

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[17] A more elegant comparison of the entire vector of eight variables was attempted, but the compounded shrinkage in cell size for such an analysis precluded that approach.

Table 6-25

Comparison of Modal Black Students and Poverty Level Black Students on Satisfaction Indices by Institution

	Modal					Poverty Level				
Institution*	N	S1***	S2	S3	S4	N	S1	S2	S3	S4
101	33	-.17	-.01	.35	.21	49	-.43	.55	.19	.00
102	15	-.01	.40	-.24	.37	35	-.15	.24	.04	.07
104	8**	-.57	-.46	.31	.08	13	-.73	-.21	.19	-.54
111	22	-.05	-.80	-.56	-.52	12	-.57	-.58	-.22	-.45
113	17	.45	.06	.38	-.06	11	.15	-.83	.24	-1.38
115	31	.26	.02	.02	.16	39	.12	.35	.08	-.44
116	9**	.16	.70	-.45	.02	29	.10	.57	-.27	.03
117	15	-.56	-.58	-.29	.08	21	-.33	-.87	.17	-.15
118	41	-.56	-.20	-.05	-.39	29	-.81	.18	-.30	-.58
120	14	.15	.68	-.05	-.87	9**	-.22	.33	.52	-.08
122	18	-.32	-.01	-.24	-.44	28	-.41	.16	-.27	-.78
126	2**	-.95	-.55	-.90	-.60	27	-.61	-.77	-.04	-.09
129	11	.20	.21	.29	.24	65	.20	.04	.54	-.21
133	12	.76	.28	.72	.31	6**	.72	.55	1.28	.90
136	32	1.09	.92	.40	-.63	15	1.09	1.03	.75	-.56
141	19	-.40	-.31	-.30	-.03	40	-.50	-.18	-.53	-.27
144	46	-.10	-.36	.25	-.48	27	-.48	-.47	.22	-.06
146	27	-.27	-.70	.25	-.38	37	-.24	-.19	.06	-.22
149	25	-.49	-.42	-.42	-.06	20	-.30	-.77	-.50	-.22
151	25	-.22	-.27	-.26	.19	26	-.15	-.39	-.15	.21
155	24	.00	.18	-.05	.06	25	-.02	.14	.21	-.25
204	15	-.16	.06	-.13	-.49	13	-.11	.16	-.19	-.29

Table 6-25 (Continued)

Institution*	Modal N	 S1***	 S2	 S3	 S4	Poverty Level N	 S1	 S2	 S3	 S4
208	14	-.61	-1.17	-.67	-.19	9**	-.40	-1.27	.48	-.83
211	22	-.08	.36	-.27	-.38	50	.02	.30	-.02	-.11
212	9**	-.31	.16	.46	-.62	12	-.30	.09	.27	.16
213	15	-.34	-.69	-.60	-.16	23	-.75	-.58	-.33	-.50
214	26	-.20	.17	.06	.17	36	-.41	.29	-.16	.08
216	13	.07	.15	.26	-.02	40	.39	.22	.31	-.36
218	22	-.60	-.64	-.02	-.52	15	-.38	-.40	-.02	-.05
220	21	-.08	-.31	.35	.11	50	-.08	.32	.51	-.08
222	26	.04	-.28	.25	.20	43	-.32	-.27	-.36	.21
223	14	-.75	-.14	.45	.76	8**	-.66	-.27	-.44	.47
225	19	.30	.84	.62	-.67	16	.36	.59	.35	-.83
226	19	-.19	.09	-.43	-.03	12	-.43	.09	-1.29	.28
227	20	-.41	.30	.85	.17	43	-.58	.39	.57	.17
228	9**	.15	.02	-.25	.56	54	-.19	.42	.06	.06
233	17	.21	.79	.14	-.33	8**	.48	.41	-.60	-.22
235	9**	.13	.37	-.38	-.27	20	-.31	-.39	-.16	-.24
238	35	-.83	-.47	.26	-.34	30	-.84	.10	-.06	-.33
250	18	-.14	-.26	.19	.31	59	-.04	-.14	.06	-.05
251	20	.30	.47	.06	.07	42	.17	.56	.20	-.09
258	17	-.78	-.35	.11	.18	11	-.32	-.39	-.05	-.37

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*Institution code number.

**Cell size shrinkage to less than 10 due to nonresponse.

***S1 is General Atmosphere Satisfaction; S2 is Social Satisfaction; S3 is Academic Satisfaction; S4 is Financial/Persistence Satisfaction.

Table 6-26

Comparison of Modal White Students and Poverty Level White Students on Satisfaction Indices by Institution

	Modal					Poverty Level				
Institution*	N	S1***	S2	S3	S4	N	S1	S2	S3	S4
103	27	-.33	.16	-.23	.53	24	.23	.10	-.32	.24
109	37	.62	.35	.10	.21	23	.27	.56	.14	.29
116	29	.33	.19	.51	.17	21	-.08	.20	.48	-.14
121	6**	.46	.41	-.03	-.26	15	.61	.61	.32	-.30
122	22	.14	-.11	-.10	-.26	11	.50	.20	-.03	-1.63
123	36	-.20	.10	.26	.00	25	-.20	.18	.21	-.09
124	50	.80	.36	-.07	.40	27	.65	.54	-.01	-.15
128	66	-.51	.40	.04	-.01	20	-.12	.15	-.30	-.04
130	56	.43	.02	-.03	.18	19	.22	.28	-.36	-.01
131	23	-.30	.05	-.21	.08	10	.63	.66	.17	-.26
138	22	.06	.24	.53	.15	12	-.20	-.19	.10	-.70
142	41	.80	.59	.15	.11	17	.92	.86	-.08	.14
143	72	.80	-.30	-.32	.53	12	.99	.33	-.01	-.37
145	31	.44	.07	.13	.19	19	.71	-.56	.19	.48
150	28	-.22	.03	-.06	.17	12	-.20	-.59	.07	-.07
154	47	.07	.14	.08	.01	25	.04	-.08	.13	.16
156	30	.53	-.40	.36	-.15	15	.53	-.63	.64	.22
159	31	-.21	.20	-.06	-.08	19	-.17	.20	.09	.13
160	30	-.08	-.25	-.19	-.13	10	-.04	.22	-.32	.29
201	50	.12	.44	.06	.32	10	-.18	.68	.51	.00
204	11	-.65	-.37	-.02	-.27	13	.10	.15	-.04	-.29

Table 6-26 (Continued)

	Modal					Poverty Level				
Institution*	N	S1***	S2	S3	S4	N	S1	S2	S3	S4
205	34	.32	.53	.02	-.05	11	.45	.70	.19	-.49
221	67	.30	.00	.04	.35	15	.28	-.21	.59	.19
224	57	.47	.23	.32	.25	17	.72	.19	.07	.02
230	13	.94	-.71	.32	-.35	11	.86	-.33	.07	.48
231	38	.37	.73	.05	-.05	21	.33	.21	-.08	-.15
235	39	.14	-.20	-.28	-.04	14	.34	-.57	.05	.16
236	40	.15	.43	-.06	-.13	15	.14	.16	.16	.07
237	49	.06	.05	.00	-.23	13	.17	-.11	-.30	-.03
239	54	-.21	-.38	.00	-.09	20	-.04	.13	-.07	-.04
243	37	-.13	.14	.03	.00	39	.09	.23	.30	-.28
244	37	-.01	-.22	.05	-.25	39	-.26	-.48	-.04	-.06
245	39	.40	-.30	.32	.30	27	.24	-.10	.31	.10
246	21	.65	.14	.21	.30	11	.39	-.17	.42	.04
249	39	-.39	.14	-.12	.00	19	-.34	-.04	-.15	.13
252	23	.45	.32	.36	.43	13	.72	.40	.26	.60
256	49	.61	-.08	.14	.04	15	.81	.24	-.03	.46
257	13	.30	.64	-.06	-.09	22	.42	.74	-.02	-.06
259	31	-.15	-.05	-.19	.04	19	-.30	.14	-.15	.07

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*Institution code number.

**Cell size shrinkage to less than 10 due to nonresponse.

***S1 is General Atmosphere Satisfaction; S2 is Social Satisfaction; S3 is Academic Satisfaction; S4 is Financial/Persistence Satisfaction.

Table 6-27

Comparison of Modal Chicano Students and Poverty Level Chicano Students on Satisfaction Indices by Institution

	Modal					Poverty Level				
Institution*	N	S1***	S2	S3	S4	N	S1	S2	S3	S4
122	11	-1.15	.19	-.60	.19	12	-.77	.46	.09	-.11
153	17	.02	.27	-.27	.03	38	-.36	.37	-.24	.16
202	12	.15	.30	-.38	.75	12	.40	.20	-.22	-.16
204	11	-.44	-.25	-.20	-.61	27	-.37	.35	-.47	-.15
205	10	-.05	.42	-.18	.35	9**	.30	.66	-.49	-.09
207	14	-.88	-.10	.33	.29	29	-.71	.24	.20	.16
232	16	-.18	.01	-.13	-.21	26	-.10	.58	.02	.09
252	10	.29	.65	.28	.13	36	.67	.37	-.41	.10
255	13	.34	.77	-.02	.29	53	.08	.86	-.44	.07
256	13	.61	.09	-.15	-.09	9**	.23	-.25	-.28	.02

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*Institution code number.

**Cell size shrinkage to less than 10 due to nonresponse.

***S1 is General Atmosphere Satisfaction; S2 is Social Satisfaction; S3 is Academic Satisfaction; S4 is Financial/Persistence Satisfaction.

Table 6-28

Comparison of Modal White Students and Physically Handicapped Students on Satisfaction Indices by Institution

	Modal					Physically Handicapped				
Institution*	N	S1***	S2	S3	S4	N	S1	S2	S3	S4
111	53	-.18	-.35	-.15	.13	13	-.39	-.75	-.32	-.23
121	6**	.46	.41	-.03	-.26	11	.55	.82	.53	-.21
124	50	.80	.36	-.17	.40	10	.57	.58	.54	-.04
143	72	.80	-.30	-.32	.53	20	.69	.09	-.37	.18
205	34	.32	.53	.02	-.05	12	.71	.95	1.08	1.37
209	17	.60	-.07	.62	.39	25	.44	.09	.40	-.16
218	20	-.17	-.75	-.49	-.12	9**	-.01	.06	.85	.58
235	39	.14	-.20	-.28	-.04	14	.44	-.01	-.18	-.07
261	15	.14	-1.26	-.12	-.14	31	.03	-.49	-.06	-.01

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*Institution code number.

**Cell size shrinkage to less than 10 due to nonresponse.

***S1 is General Atmosphere Satisfaction; S2 is Social Satisfaction; S3 is Academic Satisfaction; S4 is Financial/Persistence Satisfaction.

Table 6-29

Marginal Group Means for Ten Comparisons on Satisfaction Indices

Comparison	Group	General Atmosphere Satisfaction	Social Satisfaction	Academic Satisfaction	Financial Persistence Satisfaction
Physically Handicapped and Modal White	Physically Handicapped	.34	-.02	.10	-.11
	Modal White	.38	-.15	-.15	.21
Poverty and Modal Black	Poverty	-.21	.05	.04	-.16
	Modal	-.17	-.07	.04	-.13
Poverty and Modal White	Poverty	.22	.12	.08	-.01
	Modal	.20	.10	.04	.10
Poverty and Modal Chicano	Poverty	-.07	.46	-.25	.05
	Modal	-.13	.22	-.13	.10
Poverty Black and White	Black	-.08	.01	-.13	-.16
	White	.31	.11	.08	-.11
Poverty Chicano and White	Chicano	.12	.33	-.30	-.06
	White	.53	.15	.18	-.12
Poverty Level Native American and White	Native American	.06	.09	-.15	-.20
	White	.25	.06	.11	-.01
Modal Chicano and White	Chicano	-.05	.27	-.12	-.02
	White	.17	.03	.10	.07
Modal Chicano and Black	Chicano	-.38	.02	-.15	-.23
	Black	-.33	-.38	-.34	-.23
Modal Black and White	Black	-.22	-.35	-.26	-.17
	White	.02	-.11	.04	.17

Table 6-30

Analyses* of Differences Between Groups for Satisfaction Indices

Comparison	Hypothesis Tested	df Hypothesis	df Error	F
Modal White and Physically Handicapped	Institution	32	1587.4	6.94**
	Disadvantagement	4	5	4.42
	I x D Interaction	32	1587.4	1.69**
Poverty and Modal Black	Institution	164	7561.5	6.25**
	Disadvantagement	4	38	2.43
	I x D Interaction	164	7561.5	1.08
Poverty and Modal White	Institution	152	8123.1	4.65**
	Disadvantagement	4	35	.80
	I x D Interaction	152	8123.1	1.10
Poverty and Modal Chicano	Institution	36	1332.1	3.09**
	Disadvantagement	4	6	1.77
	I x D Interaction	36	1332.1	.94
Poverty Level Black and White	Institution	32	1281.3	4.24**
	Ethnicity	4	5	15.41**
	I x E Interaction	32	1281.3	1.29
Poverty Level Chicano and White	Institution	20	561.5	3.82**
	Ethnicity	4	2	109.63**
	I x E Interaction	20	561.5	1.86
Poverty Level Native American and White	Institution	16	468.1	3.47
	Ethnicity	4	1	.22
	I x E Interaction	16	468.1	1.43
Modal Black and White	Institution	96	3809.5	4.37 *
	Ethnicity	4	21	7.02**
	I x E Interaction	96	3809.5	2.00**
Modal Chicano and White	Institution	44	1513.1	3.26**
	Ethnicity	4	8	3.56
	I x E Interaction	44	1513.1	1.39
Modal Chicano and Black	Institution	16	351.9	1.96
	Ethnicity	4	1	1.54
	I x E Interaction	16	351.9	2.41**

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*Multivariate Tests using Wilks' Lambda Criterion. Mixed Model Design with Institution treated as a random "effect" and Group as a fixed "effect."

**Significant at .01 level.

students comparison was there a lack of significant variability of satisfaction indices across institutions. Among poverty level students, there were no interactions of institution and ethnicity, but two of three comparisons showed significant ethnic differences for the satisfaction indices. For the one nonsignificant difference (that between poverty level native Americans and poverty level whites), the lack of significant interaction allowed reanalysis with a pooled error term, but such reanalysis again failed to yield a significant difference. Among modal students, results were more varied. The comparison of black and white modal students yielded significant institution and ethnic differences plus an interaction of institution and ethnicity (main effects are less clearly interpreted in light of this interaction). The comparison of Chicano and black modal students yielded only a significant interaction. The comparison of Chicano and white modal students produced only a significant difference attributable to institutions. In the latter case, since no interaction was present, the ethnic difference was reexamined using the combined residual and within cell error. This reanalysis showed a significant difference between the Chicano and white students.

In further examination of these data by univariate analysis of variance--where multivariate tests were significant--some interesting features of the data were uncovered. Institutional differences were, in general, attributable to differences on two satisfaction indices--Satisfaction with General College Atmosphere and Satisfaction with Social or Interpersonal Activities--regardless of the comparisons made. Group differences (by ethnicity), on the other hand, showed stronger influence due to the remaining two satisfaction indices--Satisfaction with Academic Matters and Satisfaction with Financial and Persistence Matters (see Table 6-29).

In summary, then, the analyses of satisfaction indices showed strong differences in general student satisfaction among institutions. Such differences were mainly due to differences in satisfaction regarding general college atmosphere and social or interpersonal activities (although the remaining satisfaction indices also showed statistically significant institutional differences for some comparisons). Differences between modal and disadvantaged students within ethnic classification and blocking by institution were not significant ones; but differences between students of different ethnic groups within a given level of disadvantagement classification did prove, in general, to be substantial. Ethnic group differences in student satisfaction were influenced to a greater extent by differences in satisfaction with academic as well as financial and persistence matters than were the institutional differences. Differences between black students and white students showed white students more satisfied on all of the four indices within both the modal and poverty level classifications. White students were consistently more satisfied than Chicano students except for satisfaction with social and interpersonal matters. There was some evidence of interaction of institution and group on the satisfaction indices--notably for the physically handicapped and white comparison and for two of the ethnic comparisons within the modal category.

b. Student Self-Perception. Marginal group means for the various comparisons of the two self-perception variables are given in Table 6-31. Summaries of the analyses of these comparisons are given in Table 6-32. These results are similar to those for student satisfaction presented previously in that ethnic differences are typically of greater magnitude than are differences between modal and disadvantaged students.

For the comparisons of various modal and disadvantaged subgroups, institutional differences are again quite pronounced, but not so much as was the case for analyses of student satisfaction. For those institutions used in the modal/poverty level comparison within the Chicano subgroups, there is no significant difference in the mean vector of student self-perceptions among the institutions. While the difference between modal and poverty white students is a statistically significant one, it should be noted (see Table 6-31) that it is in fact rather small in an absolute sense. As no interactions were present, modal/disadvantaged comparisons were analyzed using a pooled error term. Such reanalyses produced only one change in findings, revealing a significant difference between the physically handicapped and modal white students at those institutions where such comparisons were made. However, again the absolute difference is not impressive.

Various ethnic comparisons within the poverty level classification yielded no suggestion of interaction. Further, institutional differences were not significant except for those institutions where comparison between poverty level native Americans and whites were made. Group differences, while fairly pronounced, were not initially significant. On reanalysis, in light of the lack of interaction, all group differences proved statistically significant. As can be noted in Table 6-31, the significant differences associated with ethnic contrasts within the poverty level group were, in all instances, attributable to the relatively higher self-perception indices among the poor white students.

The comparisons between ethnic groups within the modal student classification showed significant institutional variability for two of the three comparisons--Chicano and white; black and white. Likewise there were two significant group differences--in both instances, the difference is seen to be attributable to the higher values on the self-perception indices on the part of the modal white students. The difference between modal Chicano students and modal black students did not prove to be significant even on reanalysis with a pooled error term. In one case--modal white and modal black--there was a significant interaction.

Further examination of the data by univariate tests showed that institutional differences were attributable, in the main, to the general self-perception index. Group differences, on the other hand, were more related to the academic self-perception index.

In summary, these findings support previous ones. Institutions differ in terms of the index of student self-perception, but typically to a much smaller

Table 6-31

Marginal Group Means for Ten Comparisons on Self-Perception Indices

Comparison	Group	N	General Self-Perception	Academic Ability Perception
Physically Handicapped and Modal White	Physically Handicapped	142	18.1	5.6
	Modal White	304	18.5	6.2
Poverty and Modal Black	Poverty	1123	17.2	5.7
	Modal	785	17.4	5.7
Poverty and Modal White	Poverty	699	18.4	5.8
	Modal	1407	18.9	6.1
Poverty and Modal Chicano	Poverty	249	17.8	5.3
	Modal	124	18.0	5.5
Poverty Black and White	Black	179	16.8	5.5
	White	183	18.3	5.7
Poverty Chicano and White	Chicano	106	17.4	5.2
	White	79	18.8	5.9
Poverty Native American and White	Native American	59	17.9	4.9
	White	106	18.5	5.7
Modal Black and White	Black	351	16.2	5.1
	White	650	18.4	6.2
Modal Chicano and White	Chicano	140	17.9	5.5
	White	279	18.6	6.4
Modal Chicano and Black	Chicano	54	17.1	5.1
	Black	67	16.0	4.9

Table 6-32

Analyses* of Differences Between Groups for Self-Perception Indices

Comparison	Hypothesis Tested	df Hypothesis	df Error	F
Physically Handicapped and Modal White	Institution	16	854	2.27**
	Disadvantagement	2	7	5.33
	I x D Interaction	16	854	1.77
Poverty and Modal Black	Institution	82	3646	3.87**
	Disadvantagement	2	40	4.74
	I x D Interaction	82	3646	.80
Poverty and Modal White	Institution	76	4054	3.00**
	Disadvantagement	2	37	15.54**
	I x D Interaction	76	4054	.79
Poverty and Modal Chicano	Institution	18	704	1.65
	Disadvantagement	2	8	2.69
	I x D Interaction	18	704	.62
Poverty Black and White	Institution	16	686	1.71
	Ethnicity	2	7	8.86
	I x E Interaction	16	686	1.39
Poverty Chicano and White	Institution	10	344	2.03
	Ethnicity	2	4	9.00
	I x E Interaction	10	344	.64
Poverty Native American and White	Institution	8	308	3.09**
	Ethnicity	2	3	4.89
	I x E Interaction	8	308	1.43
Modal Black and White	Institution	48	1900	2.18**
	Ethnicity	2	23	32.06**
	I & E Interaction	48	1900	1.91**
Modal Chicano and White	Institution	22	788	1.87**
	Ethnicity	2	10	7.74**
	I & E Interaction	22	788	1.40
Modal Chicano and Black	Institution	8	220	1.16
	Ethnicity	2	3	1.99
	I & E Interaction	8	220	.81

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*Multivariate Tests using Wilks' Lambda Criterion. Mixed Model Design with Institution treated as a random "effect" and Group as a fixed "effect."

**Significant at .01 level.

extent than for student satisfaction. This should not be too surprising in light of the fact that the self-perception questionnaire item was to be answered relative to other students at the same institutions. While there are few suggestions of an interaction between group and institution for these variables, there is a stronger indication of modal/disadvantaged differences. Nevertheless, such differences are, to be sure, still small relative to ethnic differences. Differences between paired ethnic groups, when statistically significant, are due to relatively higher values of the self-perception variable among the white student subgroup.

c. *Educational Persistence*. In the analyses for differences on the persistence index, results showed no group differences and no interactions of group and institution. There were, as could have been anticipated, some significant institutional differences. Differential emphasis for ongoing graduate education at diverse institutions might explain such differences.

Marginal subgroup means and the summary of the analyses are provided in Table 6-33 and Table 6-34 respectively. Reanalyses of group differences, in light of the lack of interaction, using a pooled error term produced no statistically significant group differences.

The lack of statistically significant differences for this index of persistence is not particularly surprising. It has been noted that the index is not a particularly sensitive one, and the questionnaire item from which it was derived is couched in terms of educational "plans." As such, what we have termed "educational persistence" may, in fact, reflect little more than aspiration for educational continuance. Whatever this variable measures, it shows no differentiation between ethnic categories or disadvantagement categories.

d. *Academic Achievement*. The results of the analyses for differences in postsecondary academic achievement are reported in Table 6-35. Marginal group means are reported in Table 6-33. These analyses differ from earlier ones in that reported postsecondary grade averages were analyzed using reported high school grade averages as a covariate. In all cases, the tested relationships between high school and postsecondary grades were positive and statistically significant. The marginal means reported are, in fact, corrected for group differences on the covariate--high school grades.

For the four modal/disadvantaged comparisons within ethnic subgroups, there were no significant group differences when high school grades are taken into account. However, there were significant differences in postsecondary grade averages among the institutions except the one considering institutions where poverty and modal Chicanos were enrolled. Since no interactions were revealed by these analyses the modal/disadvantaged group differences were reanalyzed using a pooled error term. The reanalysis again showed no significant differences between modal and disadvantaged students. This "lack of effect" is directly observable in the uniformity of the marginal means presented in Table 6-33.

Table 6-33

Group Means for Ten Comparisons on Student Achievement and Persistence Indices

Comparison	Group	N	Achievement*	N	Persistence
Physically Handicapped and	Physically Handicapped	139	2.61	141	3.29
Modal White	Modal White	305	2.69	305	3.21
Poverty and Modal	Poverty	1198	2.43	1227	3.24
Black	Modal	836	2.46	852	3.28
Poverty and Modal	Poverty	695	2.74	713	3.15
White	Modal	1410	2.70	1411	3.14
Poverty and Modal	Poverty	242	2.37	259	3.10
Chicano	Modal	120	2.43	129	3.12
Poverty	Black	182	2.32	192	3.17
Black and White	White	184	2.75	185	3.24
Poverty	Chicano	104	2.41	108	3.07
Chicano and White	White	77	2.68	80	3.20
Poverty	Native American	64	2.31	65	3.15
Native American and White	White	106	2.77	106	3.24
Modal	Black	377	2.34	375	3.35
Black and White	White	649	2.75	658	3.29
Modal	Chicano	140	2.60	144	3.10
Chicano and White	White	279	2.83	279	3.15
Modal	Chicano	56	2.58	54	3.06
Chicano and Black	Black	70	2.44	69	3.33

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*Means reported are corrected for high school achievement.

Table 6-34

Analyses* of Differences Between Groups for Persistence

Comparison	Hypothesis Tested	df Hypothesis	df Error	F
Physically Handicapped and Modal White	Institution	8	428	1.23
	Disadvantagement	1	8	.17
	I x D Interaction	8	428	1.93
Poverty and Modal Black	Institution	41	1995	2.43**
	Disadvantagement	1	41	.79
	I x D Interaction	41	1995	1.29
Poverty and Modal White	Institution	38	2046	3.93**
	Disadvantagement	1	38	1.03
	I x D Interaction	38	2046	.66
Poverty and Modal Chicano	Institution	9	368	2.38
	Disadvantagement	1	9	.06
	I x D Interaction	9	368	1.57
Poverty Black and White	Institution	8	359	1.99
	Ethnicity	1	8	.38
	I x E Interaction	8	359	1.72
Poverty Chicano and White	Institution	5	176	1.76
	Ethnicity	1	5	.60
	I x E Interaction	5	176	.56
Poverty Native American and White	Institution	4	161	.77
	Ethnicity	1	4	.13
	I x E Interaction	4	161	.50
Modal Black and White	Institution	24	983	1.83**
	Ethnicity	1	24	1.51
	I x E Interaction	24	983	1.53
Modal Chicano and White	Institution	11	399	3.71**
	Ethnicity	1	11	.10
	I x E Interaction	11	399	1.48
Modal Chicano and Black	Institution	4	113	2.35
	Ethnicity	1	4	4.75
	I x E Interaction	4	113	.98

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*Univariate Tests. Mixed Model Design with Institution treated as a random "effect" and Group as a fixed "effect."

**Significant at .01 level.

Table 6-35

Analyses* of Differences Between Groups for Postsecondary Achievement

Comparison	Hypothesis Tested	df Hypothesis	df Error	F
Physically Handicapped and Modal White	Institution	8	425	4.54**
	Disadvantagement	1	7	3.44
	I x D Interaction	8	425	1.53
Poverty and Modal Black	Institution	41	1949	11.48**
	Disadvantagement	1	40	4.14
	I x D Interaction	41	1949	1.00
Poverty and Modal White	Institution	38	2026	7.93**
	Disadvantagement	1	37	.03
	I x D Interaction	38	2026	.99
Poverty and Modal Chicano	Institution	9	341	2.07
	Disadvantagement	1	8	1.78
	I x D Interaction	9	341	1.30
Poverty Black and White	Institution	8	347	5.00**
	Ethnicity	1	7	95.11**
	I x E Interaction	8	347	.50
Poverty Chicano and White	Institution	5	168	.68
	Ethnicity	1	4	1.17
	I x E Interaction	5	168	1.51
Poverty Native American and White	Institution	4	159	2.89
	Ethnicity	1	3	7.47
	I x E Interaction	4	159	1.97
Modal Black and White	Institution	24	975	5.21**
	Ethnicity	1	23	38.61**
	I x E Interaction	24	975	2.90**
Modal Chicano and White	Institution	11	394	1.50
	Ethnicity	1	10	6.21
	I x E Interaction	11	394	1.86
Modal Chicano and Black	Institution	4	115	5.26**
	Ethnicity	1	3	2.51
	I x E Interaction	4	115	1.69

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*Covariance analysis with high school grades as covariate. Mixed Model Design with Institution treated as a random "effect" and Group as a fixed "effect."

**Significant at .01 level.

When ethnic comparisons for postsecondary grades were made within the poverty or modal categories, however, the results were considerably different. From Table 6-33 it can be seen that differences in college grades for different ethnic groups within the poverty or modal classifications are greater, in general, than differences between modal and disadvantaged students within specific ethnic categories. For this set of comparisons, there were institutional differences in college grade average only for the comparisons involving: (a) modal Chicano and black students and (b) modal black and white students. An institution by group interaction was present only for the latter comparison. Reanalyses were performed for group differences using a pooled error term for all comparisons save the one in which a significant interaction was present. As a result of this reanalysis it was found that all but one of the comparisons of students from different ethnic groups, within a specific category, showed significant group differences on the academic achievement variable. The one case where such a difference was not found was between the modal Chicano and black students. From Table 6-33, it can be seen that these differences are, in fact, quite substantive in most instances, representing in the maximum case a difference equivalent to almost half a letter grade. The grade average advantage goes in every case to the white student group.

Thus, analyses for differences in postsecondary academic achievement revealed some institutional differences and provided some additional indication of an interaction between institution and student group as related to student success. More importantly, such analyses add considerable weight to the recurrent finding that modal/poverty differences are overshadowed by ethnic differences. There were, in fact, only quite minor differences between modal and disadvantaged students within a given ethnic category in terms of postsecondary academic achievement, after correcting for high school achievement, but there were marked differences among students of different ethnic classification within either the poverty or modal category. In every case the differences were attributable to the relatively higher achievement of the white student group.

e. Summary. In summarizing the differences observed among the various student groups when institutional specific influences were built into the analysis model, it should be pointed out that certain assumptions of random selection were not met--if for no other reason than the self-selective nature of the respondents. Such an assumption, as well as others that are likely violated, is basic to proper interpretation of the results of the analyses as well as to the analysis model itself. To the extent that assumptions of the analysis model are violated, the validity of the results are suspect. If one views these findings as suggestive rather than absolute in some real sense, then the problem is considerably less serious. The reader should again be cautioned against causative generalizations. The past experiences that could be reflected in any differences found are quite numerous (see Section 6.B) and have not been fully considered in the analyses. Further, it is unwise to assume causality from one set of analyses to another (e.g., that satisfaction with academic matters and actual academic matters show similar patterns of differences does not in any sense indicate that either causes the other). Finally, the reader should be aware that there are problems in interpreting significance level for sets of analyses such as these due to the fact that the analyses are not independent. There is lack of independence across group comparisons, since some institutions contribute to more than one comparison. There is further lack of independence across the four general indices of success.

With the foregoing thoughts in mind our results involving institution specific contributions to student success may be summarized. There were, as expected, some rather marked institutional differences on the success indices of students in general. The most consistent differences associated with the institution were in respect to the satisfaction indices. Moreover there were some suggestions of interactions between institution and student group considered--the comparative success of modal and disadvantaged students (or students of differing ethnicity) was, in some instances, different depending on the institution involved. The lack of any larger number of such interactions makes the interpretation of group differences (as well as further analyses) much more straightforward. On the other hand, a lack of interaction suggests that no group of institutions is doing much better than another in terms of differentially contributing to the success of the disadvantaged student relative to his modal classmates. This may mean that all are doing fairly well in this regard or it could mean that all are doing poorly. The fact that modal/disadvantaged differences were so minor would suggest the former.

Some differences on the indices of student success were found between modal and disadvantaged students, with modal students being only slightly more "successful" than their disadvantaged counterparts. Contrary to some rather strong beliefs, the basic lack of difference between modal and disadvantaged student success would indicate that, within the same ethnic group, the poor students and physically handicapped students on campus are doing as well as modal students. This may be due to institutional influences--or in spite of institutional influences.

Differences in success among students of different ethnic groups are, however, considerably more numerous and more pronounced. The white students, both poor and modal, clearly have an advantage in the system of postsecondary education in terms of success as measured here. This finding, of course, will not be surprising to many.

Having examined institutional specific contributions to student success, we next turn to an examination of possible differences due to type of institution. Our focus therefore shifts from that of demonstrating the relationships between individual institutional variability and student success to that of attempting to determine which, if any, of several dimensions of institutional classification might explain the demonstrated relationships.

3. Institution Type as Related to Student Success

In planning for the study, certain institutional characteristics were considered important for consideration in the analyses of student data. These characteristics (see Chapter 3) were included as criteria for sampling institutions to insure ample heterogeneity.

Seven characteristics of institutions will be considered in the analyses that follow:

- institutional participation in the SSDS program
- judged success of institution in dealing with disadvantaged students (success was established by "expert" judgments, see Chapter 3)
- institutional selectivity
- residency provisions of institution
- institutional control--public or private
- predominant ethnicity of study body (predominantly black or white)
- highest institutional offering (two-year community college or four-year institution)

A complete crossing of these institutional and student characteristics for analysis purposes is not possible, since many of the resulting combinations are not found in our sample. We must therefore carry out a number of separate analyses to provide the comparisons of interest. These analyses will employ subsamples in which the particular characteristics of interest occur.

Within the predominantly black institutions it is not possible to consider any ethnic group other than black students. Thus, within this subset of institutions, we will consider modal and poverty level black student differences in terms of degree of participation in the SSDS program, judged success of institution in dealing with disadvantaged students, and institutional control. To maintain comparability of ethnic groups, we will also compare black modal and disadvantaged students at predominantly black institutions with a similar student population at predominantly white two-year community colleges and four-year institutions.

In predominantly white institutions, we will consider modal and disadvantaged student differences in terms of institutional participation in the SSDS program, judged institutional success, and highest institutional offering. Within the predominantly white four-year institutions, we will in addition examine modal and disadvantaged student differences for the major ethnic groups in terms of type of institutional control, institutional selectivity and institutional residency requirements (see Chapter 3 for definitions).

For reasons similar to those advanced in the previous section, the analysis tool used throughout will be the multivariate analysis of variance. Unequal cell size (nonorthogonality) again will be taken into account by a least squares approach. For these analyses, we will use the entire vector of eight variables contributing to the four indices of student success with high school grades as a covariate. This, of course, will introduce the problem of compounding of nonresponse bias, since only those students responding to all relevant questionnaire items will be used in these analyses.

a. Comparisons within Predominantly Black Institutions

The results of the three analyses of differential success by institution type within predominantly black institutions are summarized in Table 6-36. The tests for differences between poverty level and modal black students within those institutions are redundant, since the same basic data set is used throughout. However, some differences in the within cell covariance matrix as a result of different cell classification for the analyses will lead to minor numerical differences in the test results. The analyses show a significant relationship between disadvantagement classifications and student success within the predominantly black institution. Further, of the three modes of institutional classification considered institutional factors are also related to student success. There are, however, no interactions of student and institution classification on the success indices.

(1) Student Success As Related to Disadvantagement Classification

These comparisons show a statistically significant difference between poverty level black students and modal black students on the vector of eight success indices. Univariate tests of each success index (again using high school grades as a covariate) indicate that the indices contributing most heavily to the multivariate test results are satisfaction with social or interpersonal matters and perceived academic ability. Poverty level blacks are more satisfied with social or interpersonal matters than are modal blacks. The difference between modal and poverty level black students in regard to perceived academic ability, while statistically significant, is relatively small--with modal students expressing a slightly more positive view.

(2) Student Success As Related to Institutional Factors (Interaction)

As is evident from Table 6-36, there are no significant interactions between institution type and student poverty/modal classification. This suggests that whatever differences exist between modal and poverty level black students, these differences are relatively stable regardless of the institutional characteristics considered within the subset of predominantly black institutions.

SSDS participation. The success of the disadvantaged student relative to that of the modal student is no greater or less at SSDS participating institutions than at institutions not participating in the SSDS program. An examination of corrected cell means again gives little indication of any trend toward greater relative success of poverty level students at the SSDS participating

Table 6-36

Analyses* of Differences Between Groups for Success Indices Within Predominantly Black Institutions

Comparison	Hypothesis Tested	df Hypothesis	df Error	F
SSDS Participation	Institution Type	8	1115	4.71**
	Disadvantagement	8	1115	3.39**
	I x D Interaction	8	1115	1.49
Success with the Disadvantaged	Institution Type	16	2226	3.45**
	Disadvantagement	8	1113	3.30**
	I x D Interaction	16	2226	.62
Control (Public-Private)	Institution Type	8	1115	2.33
	Disadvantagement	8	1115	3.53**
	I x D Interaction	8	1115	.95

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*Multivariate analysis of covariance for 8 success indices using high school grades as a covariate--Wilks' Lambda Criterion.

**Significant difference at .01 level.

institutions, with the possible exception of satisfaction with financial and persistence matters. For this success index, poverty level students at SSDS participating institutions were more satisfied than modal students, while at nonparticipating institutions, poverty level students were considerably less satisfied than modals. This may be a function of the SSDS program's emphasis on gaining adequate financial aid for their students or it may reflect a general climate at institutions which attract federal money for such programs.

SSDS participation. From Table 6-37 it can be seen that, with the one exception of satisfaction with financial matters, students in general seem more successful at institutions NOT participating in the SSDS program than at those which are participating. Reexamination of these data by univariate tests showed significant differences on all satisfaction indices and on general self-perception. This could, of course, reflect attempts by the DSA program staff to place programs at institutions where they were most needed.

Judgments of institutional success in dealing with the disadvantaged. There was no interaction of this institution characteristic and student classification as to poverty or modal classification. These results are somewhat surprising at first glance. If, in fact, the experts were correct in classifying institutions in their relative success in programmatic attention to disadvantaged students, then, in terms of our eight student success indices, one might expect that poverty level students at successful schools would manifest greater success relative to modal students than would be the case at institutions judged unsuccessful or at institutions that were nonclassified--judged neither successful nor unsuccessful. Empirically, this was not the case. Visual examination of the corrected cell means (Table 6-37) gives no indication of even a slight trend in the data suggestive of the fact that poverty level students at successful institutions were relatively more successful than those at unsuccessful institutions or, for that matter, than those at nonclassified institutions. One plausible explanation is that, for the black schools, success was not validly recognized by the experts. Other, and more likely possibilities are that the experts may have been judging institutional success on criteria other than those reflected in our indices of student success (satisfaction, postsecondary grades, persistence, and self-image); or, that our student success indices may lack validity. It could also be the case that the successful institutions have, indeed, been successful, but that they started with different raw material than did the unsuccessful institutions since only high school grades have been partialed from the data. Whatever the reason, for the black institutions considered in this analysis, the judged success of institutions is not reflected in the relative student success of the poverty level students in terms of our eight indices of student success. As stated, however, it is not necessary that institutional success with disadvantaged students be reflected in student success indices measured at a single point in time.

Table 6-37

Marginal Institutional Means* for Success Indices; Black

Students at Predominantly Black Institutions

Comparison				Success Index**				
	S1	S2	S3	S4	SP1	SP2	CG	PER
Institutional SSDS Participation								
Participating	-.314	-.048	.033	-.021	17.4	5.8	2.48	3.2
Not Participating	-.130	.105	.189	-.203	17.8	6.0	2.53	3.3
Institutional Success								
Successful	-.394	.013	-.058	-.020	17.3	5.8	2.48	3.2
Nonclassified	-.110	.088	.213	-.167	17.8	6.0	2.54	3.3
Unsuccessful	-.324	-.106	.030	-.109	17.3	5.9	2.43	3.3
Institutional Control								
Public	-.122	.045	.121	-.102	17.7	5.9	2.52	3.3
Private	-.364	.028	.121	-.162	17.4	5.9	2.50	3.2

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*Means reported have been corrected for high school grades.

**S1 is General Atmosphere Satisfaction; S2 is Social Satisfaction; S3 is Academic Satisfaction; S4 is Financial/Persistence Satisfaction; SP1 is General Self-Perception; SP2 is Academic Ability Perception; CG is College Grades; and PER is Persistence Index.

Judged success in dealing with the disadvantaged. Examination of the marginal means in Table 6-37 yields some interesting insights. In general, students seem most satisfied at nonclassified--rated neither successful nor unsuccessful by the experts--institutions. Moreover, differences in the student success indices for successful and unsuccessful institutions are quite minor. A reanalysis of the data, examining differences on each student success index separately, showed significant differences only for satisfaction with general college atmosphere, academic satisfaction, general self-perception, and college grades.

Institutional control. No interaction was observed between this institutional characteristic and disadvantagement classification. That poverty level students in public institutions are no more successful relative to modal students than are poverty level students in private institutions is less surprising. One might argue on intuitive grounds that one would expect greater selection in admission to the private institutions, but if this is the case then it must be independent of disadvantagement status.

In regard to the three institutional characteristics considered in our analyses within predominantly black institutions, there is no statistical evidence that the success of poverty level students relative to modal students is a function of type of institution, for the three classifications of institutions considered. There are, on the other hand, strong indications of difference in success of students in general (collapsing across the category of disadvantagement) among institutions of different types. The tests for such differences have been reported in Table 6-36 and the marginal means for the three analyses are presented in Table 6-37. The analysis for institutional control (i.e., public-private) showed no significant difference asssociated with institution type and this analysis will not be discussed.

The analyses within black institutions indicate differences between modal and poverty level student success indices and differences between student success at the different types of institutions. However, there is no evidence that any of the categories of institutional type considered is related to the differential success of poverty level students relative to modal students within a given type of institution. Throughout these analyses, the covariate (high school grades) was significantly related to the vector of eight success indices. The strongest relationships were with college grades, academic satisfaction, and academic self-perception.

b. Comparisons of Other Institutions with Predominantly Black Institutions

Because of the preceding examination of modal/poverty differences within the subset of black institutions necessarily involved only black students, we sought to determine whether any similar differences between modal and poverty level black students at other types of institutions in the study were evident--specifically black students in community colleges and those in predominantly white four-year institutions.

From Table 6-38 we see that: (1) there are significant differences in the success indices for black students depending on the type of institution considered (predominantly black, community college, or four-year predominantly white); (2) there are significant differences in the success indices for poverty level and modal black students; and (3) there is an interaction--the difference between modal students and poverty level students is a function of the type of institution considered. The overall differences between modal black students and poverty level black students as well as the difference due to institution type are really secondary to the interaction found. The interaction suggests that our examination of modal/poverty differences is appropriately examined within a specific category of institution and that our examination of differences due to institution type should be conducted within the poverty level or the modal group rather than with marginal means.

The cell means for this analysis as well as the differences between poverty level and modal black students within institution type are given in Table 6-39. An examination of this table reveals an interesting pattern of comparison. The first striking aspect of Table 6-39 is that black students, particularly poverty level, exhibit lower indices of success at predominantly white four-year institutions than those at either community colleges or at predominantly black institutions. This is manifested in lower satisfaction and self-perceptions and to a smaller extent in lower college grades. Comparing black students in community colleges and those at predominantly black institutions, the most marked differences are: (1) the greater satisfaction of students at community colleges with the general institutional atmosphere, and (2) the greater satisfaction of modal students at community colleges with social and interpersonal matters.

Examining the interaction of institution type and disadvantagement classification (as reflected in the difference column of Table 6-39) gives, perhaps, a better picture of moderation of type of institutional environment on the relative success of poverty level students. It is not the absolute satisfaction, self-perception, etc. of disadvantaged students that is considered here; rather, we consider the success of the disadvantaged student relative to that of his modal peers. As such we remove any influence that institution type may have on students in general.

In black institutions, poverty level students are considerably more satisfied than modal students regarding social and interpersonal matters. The opposite is true in community colleges while there is practically no difference in the four-year predominantly white institutions. Regarding relative academic satisfaction, poverty level students are most satisfied at four-year predominantly white institutions and least satisfied at community colleges. Satisfaction with financial and persistence matters show a reversed pattern with relative satisfaction greatest for poverty level students at community colleges and least at four-year predominantly white institutions. General self-perception of poverty level students is lowest at community colleges. For this analysis, there was a significant relationship between high school grades and the vector of eight success indices. The strongest relationships were with success indices relating to academic matters (i.e., academic satisfaction, academic self-perception, and college grades).

Table 6-38

Analysis* of Differences Between Poverty Level and Modal Black Student Success at Predominantly Black Institutions, Community Colleges, and Predominantly White Institutions

Hypothesis Tested	df Hypothesis	df Error	F
Institution Type	16	4510	17.42**
Disadvantagement	8	2225	2.68**
I x D Interaction	16	4510	17.42**

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*Multivariate analysis of covariance, using high school grades as a covariate. Wilks' Lambda Criterion is used.

**Significant difference at .01 level.

Table 6-39

Comparison of Modal Black Students and Poverty Level Black Students Within Type of Institution Attended

Institution Type	Success Index*	Poverty Level Students	Modal Students	Difference**
Predominantly Black	S1	-.21	-.21	.00
	S2	.14	-.14	.28
	S3	.10	.15	-.05
	S4	-.15	-.09	-.06
	SP1	17.5	17.7	-.2
	SP2	5.9	6.0	-.1
	CG	2.50	2.50	.00
	PER	3.3	3.3	.00
Community College	S1	.05	.18	-.13
	S2	-.04	.49	-.53
	S3	.03	.21	-.18
	S4	-.10	-.29	.19
	SP1	17.2	18.1	-.9
	SP2	5.7	5.8	-.1
	CG	2.51	2.65	-.14
	PER	3.2	3.4	-.2
Predominantly White Four-Year	S1	-.26	-.18	-.09
	S2	-.33	-.34	-.01
	S3	-.05	-.23	.18
	S4	-.23	-.01	-.22
	SP1	16.3	16.5	-.2
	SP2	5.2	5.1	.1
	CG	2.32	2.35	-.03
	PER	3.3	3.4	-.1

*S1 is General Atmosphere Satisfaction, S2 is Social Satisfaction, S3 is Academic Satisfaction, S4 is Financial Persistence Satisfaction, SP1 is General Self-Perception, SP2 is Academic Ability Perception, CG is College Grades, and PER is Persistence Index.

**Difference given is poverty mean minus modal mean. A positive sign of the result reflects a more positive index of success among the poverty level students.

These analyses suggest some intuitive as well as less obvious conclusions. The satisfaction, self-perception, and grades of black students vary as a joint function of their financial status and the educational milieu in which they are immersed. That satisfaction and self-perception of poverty level black students, relative to their modal peers, would be influenced by the institutional environment along the dimension considered here is not without parallel in the literature[18] but is still somewhat counterintuitive in some areas. Further, our findings strongly suggest that relative success of disadvantaged students should be viewed as multidimensional, since success in one area with disadvantaged students does not insure (or even probabilistically suggest) success in some other area.

c. Comparisons of Poverty-Level and Modal Students by Ethnic Group and by Institution Type within Predominantly White Institutions

The preceding analyses, considering as they did the predominantly black institutions, have dealt with only the black student. This, of course, is due to the fact that the numbers of students from other ethnic groups within the respondent sample from the black institutions are negligible. Further, no consideration was given to possible differences between physically handicapped black students and modal black students since the numbers in the former group are so small. An examination of physically handicapped students' success relative to that of modal students necessitates comparison within the white student subgroup only and thus within the predominantly white institutions. Such analyses will be reported subsequently. Our immediate attention is turned to possible differences in the success of poverty-level and modal students as related to various ethnic classifications and institutional dimensions and, more so, with possible interaction of institution type and ethnicity and/or disadvantagement in relation to student success. Three dimensions of institutional characteristics judged "success" (classification, SSDS participation, and highest offering of institution) will be considered within the subset of predominantly white institutions. Consideration of the institutional dimensions of control (public-private), selectivity, and residentiality are restricted to the subset of four year predominantly white institutions.

Table 6-40 summarizes the analyses for the three institutional characteristics. It should be noted that the three analyses performed were not directed to precisely the same student respondent population. Different breakdowns of institutions along the various dimensions produced different cell sizes for the disadvantagement by ethnic group cross-classification of students, sometimes resulting in empty cells. Thus for adjudged success in dealing with disadvantaged students, only Chicano, black and white students were used, while for the remaining two institutional characteristics, only the oriental student group was omitted. The comparisons for ethnicity, disadvantagement, and ethnicity by disadvantagement interaction are, therefore, redundant over these analyses--and patterns of significant results would suggest that such comparisons are also similar to those of former analysis

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[18] Davis, J. A., & Borders-Patterson, A. Black students in predominantly white North Carolina colleges and universities. Research Report #2. New York: College Entrance Examination Board, 1973.

Table 6-40

Analyses* of Modal and Poverty Level Student Success by Ethnicity and Institutional Characteristic in Predominantly White Institutions

Institutional Characteristics	Hypothesis Tested	df Hypothesis	df Error	F
SSDS Participation****	Institution Type	8	4965	1.14
	Disadvantagement	8	4965	6.28**
	Ethnicity	40	21644.7	20.00**
	I x D Interaction	8	4965	2.44**
	I x E Interaction	40	21644.7	2.56**
	E x D Interaction	40	21644.7	2.08**
	I x E x D Interaction	40	21644.7	1.41
Success with Disadvantaged***	Institution Type	16	9168	3.49**
	Disadvantagement	8	4584	5.98**
	Ethnicity	16	9168	42.72**
	I x D Interaction	16	9168	1.24
	I x E Interaction	32	16906.5	4.41**
	E x D Interaction	16	9168	2.48**
	I x E x D Interaction	32	16906.5	.83
Highest Offering****	Institution Type	8	4965	57.25**
	Disadvantagement	8	4965	6.62**
	Ethnicity	40	21644.7	18.03**
	I x D Interaction	8	4965	2.39**
	I x E Interaction	40	21644.7	2.63**
	E x D Interaction	40	21644.7	2.08**
	I x E x D Interaction	40	21644.7	1.34

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*Multivariate analysis of covariance, with high school grades as a covariate using Wilks' Lambda Criterion.

**Significance at .01 level.

***Due to very small cell sizes for other ethnic groups, only Chicano, black and white students were considered in this analysis.

****Due to very small cell sizes, orientals were not included in this analysis.

(as would be expected since Chicano, black and white students comprise a very large subset of the data).

From Table 6-40 one may observe that student success (as reflected in the vector of eight variables) is significantly related to student ethnic and disadvantagement classification. The magnitude of the F ratios would further suggest that the relationship with ethnicity is greater than that with disadvantagement--a persistent finding. Moreover, there are consistent ethnicity and disadvantagement interactions. Two of the three dimensions of institutional classification are also related to general student success. While there is no high order interaction in any of the analyses, the data suggest that relationships of both ethnicity and disadvantagement with success are moderated by institutional factors.

(1) Student Success As Related to Disadvantagement and Ethnicity

Although relationships of success with the major classification variables of ethnicity and financial status are less directly interpretable in the face of interactions, we will briefly examine the ethnic and disadvantagement "main effects" as well as the ethnicity by disadvantagement interaction. Table 6-41 presents the marginal means for disadvantagement and ethnic group. These marginal means are corrected for differences in the covariate, high school grades, and are specific to the analysis regarding highest institutional offering. Reexamination of the ethnicity and disadvantagement differences by univariate tests on each of the success indices separately showed that all indices evidenced significant differences among the various ethnic classifications, but that only three indices--satisfaction with financial and persistence matters, general self-perception, and academic ability perception--were significantly different for poverty level and modal students. As can be seen from Table 6-41, while the marginal mean differences are statistically significant, the differences are not very large in any absolute sense. The pattern of these differences is the most important feature. As might be expected, poverty level students are generally less satisfied than modal students with financial matters and generally have lower self-perception than modal students. White students typically have highest values on the success indices, while black students and Puerto Rican students typically have among the lowest values on these indices.

To further clarify this picture, one needs to examine the disadvantagement by ethnic group interaction. Since reexamination of differences for each success index separately showed consistent significant interaction only for college grades, the marginal cell means in Table 6-42 are limited to this single student success index. The nature of the interaction emerges as a greater variability among ethnic groups in the poverty level classification than in the modal group, and in the fact that relative positions of the ethnic groups change within the two categories, poverty level and modal. It should be pointed out that the ethnic group showing the most divergent pattern between poverty level and modal classification is the "other" group. This group (a catchall) is certainly a heterogeneous one and "other" may mean something quite different in the modal classification than it does in the poverty level classification. In some other analyses in which this group was not considered, no such interaction was found (but note the small but significant interaction shown in Table 6-38 when only Chicano, black.

Table 6-41

Marginal Means* for Student Groups at Predominantly White Institutions

Comparison	S1	S2	S3	S4	SP1	SP2	CG	PER
	Success Indices**							
Disadvantagement								
Poverty level	.00	.00	-.04	-.08	17.4	5.5	2.54	3.2
Modal	.07	-.03	-.01	.08	18.3	5.9	2.63	3.2
Ethnic Group								
Native American	.02	.08	-.23	-.08	17.4	5.2	2.39	3.0
Black	-.15	-.25	-.08	-.15	16.6	5.3	2.40	3.3
Chicano	-.05	.26	-.16	.04	17.7	5.3	2.48	3.2
White	.15	.01	.05	.09	18.6	6.0	2.71	3.2
Puerto Rican	-.10	-.04	-.25	-.12	16.3	4.9	2.25	3.1
Other	-.21	.11	-.15	.14	1[illegible]3	5.5	2.56	3.2

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*Means reported have been corrected for high school grades.

**S1 is General Atmosphere Satisfaction; S2 is Social Satisfaction; S3 is Academic Satisfaction; S4 is Financial/Persistence Satisfaction; SP1 is General Self-Perception; SP2 is Academic Ability Perception; CG is College Grades; and PER is Persistence Index.

Table 6-42

Marginal Cell Means* for Student Groups at Predominantly White Institutions for the Success Index of College Grades

	Financial Classification	
Ethnic Classification	Poverty Level	Modal
Native American	2.31	2.54
Black	2.39	2.42
Chicano	2.43	2.56
White	2.72	2.71
Puerto Rican	2.23	2.26
Other	2.78	2.44

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*Corrected for covariate of high school grades.

and white students are considered). Excluding the "other" group, we are probably safe in stating that the interaction of race and disadvantagement on student success is a weak but real one. This interaction may be attributable to a greater influence of disadvantagement on the success indices for students of minority groups than for white students (which is also suggested in previous comparison involving only white, Chicano, and black students).

(2) Student Success As Related to Institutional Characteristics

Considering the impact of specific types of institutions on students, it should be noted that with the exception of SSDS participation, the institution type was associated with differences in the average success indices for students in general. These differences, however, are moderated depending on student ethnic classification (institution by ethnicity interaction) in all three comparisons and by student classification as to poverty level or modal for two of the comparisons. Since there is no high order interaction (ethnicity by disadvantagement by institution) for any of the institutional comparisons, an examination of the first-order interactions is appropriate.

(a) Institutional Participation in the SSDS Program

The classification of institutions in terms of participation in SSDS programs reveals no clear relationship between institution type and success indices, but the institution type by ethnicity interaction and the institution type by disadvantagement interaction were both statistically significant. The marginal cell means for student ethnicity and institutional SSDS participation are given in Table 6-43. The nature of the interaction is fairly evident from the means. Native American students, at one extreme, show consistently higher success indices at the nonparticipating institutions while Puerto Rican students, at the other extreme, show consistently much higher success indices at SSDS participating institutions than at nonparticipating schools. The remaining ethnic groups show no clear-cut advantage to either SSDS or non-SSDS institutions. As a counterpart of the interaction, there are relatively smaller differences in average success indices among students of differing ethnic groups at the SSDS institutions than at the nonparticipating institutions on all indices except satisfaction with general institutional atmosphere. Certainly one of the aims of SSDS programs (as of any egalitarian program) is the minimizing of success differences among diverse groups. This is certainly not to say that the SSDS programs have brought about such reduced differences. The differences could be smaller due to a multitude of other factors, including but not limited to recruiting practices, self-selection of attending students, or institutional philosophies or interventions common to the institutions hosting the SSDS programs. In any event, the interaction suggested by Table 6-43 is a weak one.

The interaction of institution participation in the SSDS program and disadvantagement was even weaker than the one previously discussed. An examination of the marginal cell means shows differences between poverty level students and modal students to be generally small but relatively smaller at the nonparticipating institutions in terms of academic specific indices, general institution satisfaction, and social satisfaction. Regarding general self-perception and satisfaction with financial matters, modal poverty level

Table 6-43

Institutional Differences* for Selected Success Indices by Ethnic Group at Predominantly White Institutions

Institution Type	Success Index**	Student Ethnicity					
		Native American	Black	Chicano	White	Puerto Rican	Other
SSDS Participating	S1	.00	-.19	-.13	.22	.05	-.21
	S2	.05	-.14	.18	-.06	.32	.14
	S3	-.34	-.07	-.16	.06	.14	-.36
	SP1	17.2	16.7	17.6	18.6	17.8	17.1
	CG	2.33	2.36	2.51	2.75	2.46	2.51
Nonparticipating	S1	.02	-.13	.03	.12	-.26	-.22
	S2	.11	-.36	.34	.04	-.38	.08
	S3	-.10	-.09	-.16	.06	-.62	.12
	SP1	17.7	16.5	17.9	18.6	14.9	17.7
	CG	2.47	2.44	2.45	2.70	2.03	2.62

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*Marginal cell means after covarying high school grades.

**S1 is General Atmosphere Satisfaction, S2 is Social Satisfaction, S3 is Academic Satisfaction, SP1 is General Self-Perception, and CG is College Grades.

differences were smaller at SSDS participating institutions. Reexamination of these interactions by univariate tests of the individual indices showed but one index exhibiting a statistically significant interaction--this being college grades. College grades of poverty level students were higher in nonparticipating institutions than in SSDS institutions, while there were no differences between the grades of modal students at these two types of institutions. Again, one is cautioned from making any unwarranted causal inferences.

(b) Judged Institution Success

For the analysis of the impact of judged institutional success in programmatic attention to disadvantaged students, the ethnicity by institution type marginal cell means are given in Table 6-44. Since reexamination of the data by univariate analysis of variance for each success index separately showed statistically significant differences only on four indices--satisfaction with general institutional atmosphere, social satisfaction, general self-perception, and college grades--marginal means are reported for these indices only. Table 6-44 gives some indication as to how the "experts" may have classified the institutions in terms of their success prior to the study. There is an indication that black students at institutions judged to be successful with disadvantaged students are more satisfied, have more positive self-perceptions and earn somewhat higher grades than black students at the unsuccessful institutions. Further, the difference between student success indices for black and white students at institutions judged successful is smaller than that between the same two groups at unsuccessful institutions. However, except in general self-perception, the differences between student success indices for Chicano and white students is larger at judged successful institutions than at judged unsuccessful institutions. It can also be seen that black students at successful institutions show average student success indices that do not differ greatly from those of black students at institutions not classified as either successful or unsuccessful by the expert judges. Chicanos at the nonclassified institutions are, on the other hand, more similar to Chicanos at unsuccessful institutions--except in college grades. In any event, Chicanos at nonclassified and unsuccessful institutions have higher average student success indices than Chicanos at judged successful institutions. White students show higher grades and greater satisfaction with the general college atmosphere at the successful institutions, but show greater social satisfaction and a more positive general self-perception at the unsuccessful and nonclassified schools.

To summarize, the relationship between judged success and student success appears to tap a black/white difference dimension and may be expressed as: successful institutions minimize black/white student differences, and, as opposed to unsuccessful institutions, are those at which black students typically have higher student success indices. However, it should be recalled that the analysis within predominantly black colleges as well as this one showed no interaction of disadvantagement and institutional classification as to success in programmatic attention to the disadvantaged. As discussed previously, there is no necessary relationship between our measures of student

Table 6-44

Marginal Cell Means* for Specified Success Indices for Ethnic Group by Institutional Success with Disadvantaged Students at Predominantly White Institutions

Judged Success with Disadvantaged Students	Success Index**	Student Ethnicity		
		Black	Chicano	White
Successful	S1	-.14	-.35	.25
	S2	-.07	.18	-.32
	SP1	16.7	17.2	18.2
	CG	2.39	2.43	2.77
Nonclassified	S1	-.14	.03	.14
	S2	-.29	.31	.08
	SP1	16.7	18.0	18.6
	CG	2.44	2.46	2.71
Unsuccessful	S1	-.31	.24	.18
	S2	-.51	.22	-.12
	SP1	16.0	17.6	19.0
	CG	2.21	2.67	2.72

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*Corrected for the covariate high school grades.

**S1 is General Atmosphere Satisfaction, S2 is Social Satisfaction, SP1 is General Self-Perception, and CG is College Grades.

success at a single point in time and experts' judgments of an institution's history of success in providing services to the disadvantaged student.

(c) Highest Institutional Offering

The most dramatic relationship between institutional classification and success of students in general (as reflected in the magnitude of the F ratio) is the difference between students at community colleges and those at four-year predominantly white institutions. This difference has already been demonstrated for black students (see p. 6-108). This comparison of highest institutional offering also uncovered a significant interaction of institution type with both ethnicity and disadvantagement.

The marginal cell means for ethnicity and institution type are given in Table 6-45 for the five success indices--social satisfaction, academic satisfaction, general self-perception, academic self-perception and college grades--that revealed significant interaction on reexamination by univariate tests. The differences within ethnic groups of students at four-year colleges and those at community colleges are immediately obvious from the table. Only one comparison of the 30 shows community college students to have a lower student success index--the academic satisfaction for Chicanos. It is interesting to note that, even for those student success indices not showing an interaction, the higher indices were those for community college students with the one exception of the persistence index. The interactions uncovered by this analysis may be seen as institutional differences varying in size according to ethnic group. Note for example the sharp difference in general self-perception for the two groups of Puerto Rican students as compared to other ethnic groups. Moreover, there are greater ethnic group differences on the success indices in the four-year institutions than in the community colleges. The one exception is in academic satisfaction where ethnic differences are greater among the community college students. The quantitative differences between community college and four-year institution students may be misleading if the student success indices mean different things at the two types of institutions. Further, it must be noted that students at these two types of institutions are self-selected and that differences observed may be ones existing within students prior to their college enrollment. For example, that students at four-year colleges show slightly higher persistence than those at community colleges may reflect nothing more than the fact that if a student is seriously contemplating graduate education, he usually begins his higher education at a four-year institution.

The institution type (community college or four-year) and disadvantagement interaction was also reexamined by univariate tests for each student success index separately. These results showed significant interaction only for social satisfaction. The interaction is explained by the fact that modal students seem more satisfied with social and interpersonal relations in community colleges while poverty level students are relatively more satisfied in the four-year institutions. This could be due to basically different populations of modal and disadvantaged students at the two types of institutions. We have observed previously that propinquity and low cost (common features of community colleges) are a greater consideration among poverty level students than among modal students. The reasons modal students choose to attend community colleges may reflect their greater satisfaction in this setting.

Table 6-45

Institutional Differences* for Selected Success Indices by Ethnic Group at Predominantly White Institutions

Institution Type	Success Index**	Student Ethnicity					
		Native American	Black	Chicano	White	Puerto Rican	Other
Community College	S2	.46	.13	.48	.16	.45	.35
	S3	-.16	.10	-.19	.20	.35	.43
	SP1	18.0	17.6	18.4	18.8	19.1	18.4
	SP2	5.5	5.8	5.8	6.2	5.6	5.9
	CG	2.62	2.59	2.51	2.86	2.70	2.83
Four-Year Institution	S2	-.06	-.34	.13	-.06	-.21	.00
	S3	-.25	-.13	-.14	-.01	-.46	-.43
	SP1	17.2	16.4	17.4	18.5	15.3	16.8
	SP2	5.0	5.2	5.1	6.0	4.7	5.2
	CG	2.32	2.36	2.46	2.65	2.08	2.43

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*Marginal cell means after covarying high school grades.

**S2 is Social Satisfaction, S3 is Academic Satisfaction, SP1 is General Self-Perception, SP2 is Academic Ability Perception, and CG is College Grades.

d. Comparisons of Poverty Level and Modal Students by Ethnic Group and by Institution Type within Predominantly White Four-Year Institutions

Considering now the subset of four-year predominantly white institutions, the results of analyses for institutional characteristics of control (public-private), selectivity, and residential provisions are reported in Table 6-46. These institutional dimensions are necessarily restricted to the subset of four-year predominantly white institutions because of the nature of community colleges--most community colleges are public, nonselective, and do not have residential facilities. It is again the case that the three analyses performed do not encompass precisely the same samples of respondents. Due to small cell frequencies on multiple cross-classification of a shrinking subset of students, the analysis for institutional control was performed for only the black, Chicano, white, and Puerto Rican subgroups. For the institutional selectivity analyses, oriental and native American students were not used; for the institutional residency analysis, only native American, Chicano, black, and white students are considered. Nonetheless there is considerable communality in the student sample used in the three analyses (due to the large proportion of the total sample which is made up of black, Chicano, and white students) and the analyses of ethnic group differences, disadvantagement differences and ethnic group by disadvantagement interactions are therefore somewhat redundant.

All three of the institutional factors considered in this set of analyses were significantly related to student success. As in previous analysis both disadvantagement classification and ethnic classification were related to student success, with the latter showing a stronger relationship than the former. First order interactions are present but weak. Thus the basic relationships of the institutional factors and student success indices are moderated only slightly within this subset of institutions.

(1) Student Success As Related to Disadvantagement and Ethnicity

For the analyses only one significant ethnic group by disadvantagement interaction was observed, and it is a very weak one. This interaction occurred in the analysis related to institutional residency provisions. The marginal cell means contributing to the interaction are presented in Table 6-47. The weakness of the interaction is quite obvious from this table, as are the generally small differences between poverty level and modal students within different ethnic groups. Modal students generally exhibit slightly higher values on the success indices than do the poverty level students, with the possible exception of social satisfaction. Ethnic differences, in the main, are due to the relatively high average satisfaction index values for white students as compared to those of students from other ethnic groups.

(2) Student Success As Related to Institutional Control (Public-Private)

An examination of institutional differences along the public-private dimension is also best presented by examination of the ethnic group by institution interaction. These data are presented in Table 6-48. The Puerto Rican

Table 6-46

Analyses* of Modal and Poverty Level Student Success by Ethnicity and Institutional Characteristics in Predominantly White Four-Year Institutions

Institutional Characteristic	Hypothesis Tested	df Hypothesis	df Error	F
Institutional*** Control	Institution Type	8	3326	23.33**
	Disadvantagement	8	3326	6.06**
	Ethnicity	24	9647	25.04**
	I x D Interaction	8	3326	.74
	I x E Interaction	24	9647	2.15**
	E x D Interaction	24	9647	1.55
	I x E x D Interaction	24	9647	.76
Institutional Selectivity****	Institution Type	8	3411	5.58**
	Disadvantagement	8	3411	5.73**
	Ethnicity	32	12580.7	18.76**
	I x D Interaction	8	3411	1.35
	I x E Interaction	32	12580.7	1.97**
	E x D Interaction	32	12580.7	1.40
	I x E x D Interaction	32	12580.7	1.28
Institutional Residency Provisions*****	Institution Type	8	3396	8.02**
	Disadvantagement	8	3396	5.97**
	Ethnicity	24	9850	23.58**
	I x D Interaction	8	3396	2.26
	I x E Interaction	24	9850	1.43
	E x D Interaction	24	9850	1.91**
	I x E x D Interaction	24	9850	1.34

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*Multivariate analysis of covariance, with high school grades as a covariate, using Wilks' Lambda Criterion.

**Significance at .01 level.

***Due to very small cell sizes for other ethnic groups, only Chicano, black, white, and Puerto Rican students were considered in this analysis.

****Oriental and native American Students were not used in this analysis due to small cell sizes.

*****Oriental, Puerto Rican, and "other" students were not used in this analysis due to small cell sizes.

Table 6-47

Comparison of Modal and Disadvantaged Students by Ethnicity within Predominantly White Four-Year Institutions*

Student Disadvantagement	Success Index**	Race			
		Native American	Black	Chicano	White
Poverty Level	S1	-.20	-.24	-.23	.09
	S2	-.08	-.35	.17	.04
	S3	-.25	-.02	-.19	.01
	S4	-.19	-.22	.02	-.01
	SP1	17.3	16.3	17.1	18.1
	SP2	4.8	5.3	5.0	5.8
	CG	2.25	2.37	2.45	2.68
	PER	3.0	3.3	3.2	3.2
Modal	S1	.00	-.17	-.19	.06
	S2	-.04	-.35	.06	-.10
	S3	-.20	-.20	-.04	.00
	S4	.06	-.07	-.12	.14
	SP1	17.3	16.5	17.7	18.6
	SP2	5.6	5.2	5.3	6.1
	CG	2.52	2.40	2.55	2.67
	PER	3.2	3.4	3.2	3.2

---

*Cell means are corrected for the covariate high school grades.

**S1 is General Atmosphere Satisfaction, S2 is Social Satisfaction, S3 is Academic Satisfaction, S4 is Financial/Persistence Satisfaction, SP1 is General Self-Perception, SP2 is Academic Ability Perception, CG is College Grades, and PER is Persistence.

Table 6-48

Comparison of Students from Public and Private Institutions by Ethnic Group within Predominantly White Four-Year Institutions*

Institution Type	Success Index**	Ethnic Group			
		Black	Chicano	White	Puerto Rican
Public	S1	-.31	-.36	-.06	-.56
	S2	-.34	.09	-.06	-.55
	S3	-.11	-.07	.00	-.69
	S4	-.19	-.11	.05	-.08
	SP1	16.4	17.5	18.4	14.5
	SP2	5.3	5.2	6.0	4.6
	CG	2.38	2.59	2.67	1.98
	PER	3.3	3.2	3.2	2.9
Private	S1	.18	.01	.38	.50
	S2	-.40	.17	-.06	.39
	S3	-.12	-.21	.01	.05
	S4	.00	.08	.23	-.11
	SP1	16.5	17.2	18.7	17.0
	SP2	4.9	4.9	5.9	4.9
	CG	2.44	2.33	2.68	2.40
	PER	3.3	3.1	3.2	3.4

---

*Cell means are corrected for the covariate high school grades.

**S1 is General Atmosphere Satisfaction, S2 is Social Satisfaction, S3 is Academic Satisfaction, S4 is Financial/Persistence Satisfaction, SP1 is General Self-Perception, SP2 is Academic Ability Perception, CG is College Grades, and PER is Persistence.

student group shows a considerable difference between public and private institutions, having markedly higher values on all but one (financial/persistence satisfaction) of the success indices in the private institutions. Excluding the Puerto Rican group, the major differences between institutions appears to be: (1) higher satisfaction with general institutional atmosphere in the private institutions, (2) higher satisfaction with financial and persistence matters in the private institutions, and (3) higher academic self-perception in the public institutions. These three indices were the only ones showing statistically significant institutional differences.

(3) Student Success As Related to Institutional Selectivity

The examination of differential success of students at selective and nonselective institutions is best accomplished by looking at the marginal cell means (Table 6-49) for the significant institution by ethnicity interaction. The interaction is perhaps best observed by noting differences between institution type first for white students and then for Puerto Rican students. While white students in selective institutions show equal or greater average measures of success than do white students at nonselective institutions, the situation is almost completely reversed for the Puerto Rican student. The differences between institution type within the Puerto Rican student group are, in fact, quite marked. Only in the areas of financial/persistence do the Puerto Rican students appear somewhat more satisfied at selective than at nonselective institutions. A similar but smaller reversal relative to the differences observed for white students is seen for the black students except in the area of persistence. We have commented previously on the plight of the Puerto Rican student, and a comparison of the various success indices of these students to those for students of other ethnic groups within the selective institutions reemphasizes this finding. With the exception of the self-perception indices, there is little difference in student success between institution type within the Chicano and "other" subgroups.

(4) Student Success As Related to Institutional Residency Provisions

The relationships between residency provisions of institution and the student success indices were fairly weak but consistent in indicating higher values of the success indices for students in residential, as opposed to nonresidential, institutions (with the exception of social satisfaction). Reanalysis of these data by univariate tests showed that the greater success of students at residential institutions was mainly attributable to higher satisfaction with overall institutional atmosphere, higher satisfaction with financial and persistence matters, higher academic self-perception, and higher grades.

e. Comparison of Physically Handicapped and Modal White Students within Predominantly White Institutions

We now turn to an examination of the second dimension of disadvantagement considered in this study, that of physical disability. Since the physically handicapped students were, for the most part, white students, it was decided to use only the subset of white physically handicapped students and to compare them only with white modal students. The result of comparisons of differences along six dimensions of institutional variability are given in Table

Table 6-49

Comparison of Students from Selective and Nonselective Institutions by Ethnic Group within Predominantly White Four-Year Institutions*

Institution Type	Success Index**	Race				
		Black	Chicano	White	Puerto Rican	Other
Selective	S1	-.25	-.22	.14	-.42	-.38
	S2	-.44	-.02	.18	-.70	.04
	S3	-.20	-.11	.01	-.83	-.48
	S4	-.20	-.13	.24	-.05	.19
	SP1	16.3	17.2	18.5	13.9	16.4
	SP2	5.1	4.9	6.0	4.4	5.0
	CG	2.38	2.59	2.73	1.84	2.47
	PER	3.4	3.3	3.2	2.9	3.3
Nonselective	S1	-.16	-.21	.04	-.01	-.34
	S2	-.27	.22	-.02	.14	-.05
	S3	-.03	-.13	.00	-.13	-.36
	S4	-.11	.02	.05	-.11	.12
	SP1	16.5	17.5	18.5	16.5	17.2
	SP2	5.3	5.3	6.0	4.9	5.5
	CG	2.40	2.43	2.65	2.33	2.46
	PER	3.3	3.2	3.2	3.2	3.2

---

*Cell means are corrected for the covariate high school grades.

**S1 is General Atmosphere Satisfaction, S2 is Social Satisfaction, S3 is Academic Satisfaction, S4 is Financial/Persistence Satisfaction, SP1 is Self-Perception, SP2 is Academic Ability Perception, CG is College Grades, PER is Persistence.

Table 6-50

Analyses* of White Modal and Physically Handicapped Student Success by Institutional Characteristic in Predominantly White Institutions

Institutional Characteristic	Hypothesis Tested	df Hypothesis	df Error	F
Success with Disadvantaged***	Institution Type	16	4650	5.78**
	Disadvantagement	8	2325	3.98**
	I x D Interaction	16	4650	1.24
SSDS Participation***	Institution Type	8	2327	3.85**
	Disadvantagement	8	2327	4.10**
	I x D Interaction	8	2327	2.80**
Highest Offering***	Institution Type	8	2327	29.87**
	Disadvantagement	8	2327	3.82**
	I x D Interaction	8	2327	.412
Control	Institution Type	8	1653	14.62**
	Disadvantagement	8	1653	3.20**
	I x D Interaction	8	1653	1.08
Selectivity****	Institution Type	8	1653	4.58**
	Disadvantagement	8	1653	2.92**
	I x D Interaction	8	1653	3.16**
Residency Provisions	Institution Type	8	1653	4.47**
	Disadvantagement	8	1653	3.07**
	I x D Interaction	8	1653	1.91

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*Multivariate analysis of covariance, with high school grades as covariate, using Wilks' Lambda Criterion.

**Significance at .01 level.

***Analyses for entire set of predominantly white institutions.

****Analyses for subset of four-year predominantly white institutions.

6-50. Again it is the case that the first three analyses were conducted for the entire set of white institutions, while the remaining three were conducted on the subset of four-year institutions. For all of the dimensions considered there were differences in student success associated with the differences in institution type. These institution type differences, in the main, were redundant with the differences previously examined within the white student group.

(1) Relationship of Student Success to Disadvantagement Classification

For all of the analyses, differences between modal and physically handicapped students were redundant, showing significant relationship between student group classification and the vector of eight success indices. Reexamination of the student group differences for each success index separately yielded significant univariate differences for satisfaction with general atmosphere satisfaction and for the self-perception indices. Physically handicapped students showed higher satisfaction with the general institutional atmosphere and lower general self-perception and academic ability perception.

(2) Moderation of the Relationship of Student Success to Disadvantagement by Institutional Factors

For two of the analyses--institutional participation in the SSDS program and institutional selectivity--there were significant interactions. The marginal cell means for the SSDS participation and disadvantagement interaction are given in Table 6-51. The specific indices contributing to this interaction (as determined by univariate tests for each index separately) were the self-perception indices. It can be seen from Table 6-51 that there are much smaller differences on these two indices between the handicapped and modal student groups at the nonparticipating institutions than at the participating institutions. Again we must warn the reader of danger of unwarranted causal conclusions. As noted in section 6.B, the physically handicapped group is very heterogeneous in terms of their specific physical disability. Further, differential recruitment practices at SSDS institutions (or different philosophies or interventions) may attract a different kind of physically handicapped student.

The interaction regarding selectivity of institution is reflected in the marginal cell means reported in Table 6-52. The interaction can be most readily observed by noting differential modal/physically handicapped differences in the selective as compared with the nonselective institutions on the indices of college grades and satisfaction with financial/persistence matters. While physically handicapped students in selective institutions are less satisfied with financial/persistence matters and obtain higher grades than their modal peers, the opposite is generally true at the nonselective institutions. Physically handicapped students in selective institutions show higher values of the success indices than do their counterparts at nonselective institutions (the same is true to a considerably smaller extent for the modal white students).

Table 6-51

Comparisons of Physically Handicapped and Modal Students in Institutions Participating in SSDS and in Nonparticipating Institutions*

Institution Type	Success Index**	Physically Handicapped	Modal
SSDS Institutions	S1	.36	.19
	S2	-.13	-.11
	S3	.05	.05
	S4	.13	.17
	SP1	17.7	18.7
	SP2	5.6	6.2
	CG	2.17	2.80
	PER	3.4	3.1
Nonparticipating Institutions	S1	.24	.13
	S2	.22	.03
	S3	.08	.06
	S4	-.09	.12
	SP1	18.3	18.8
	SP2	6.1	6.1
	CG	2.69	2.70
	PER	3.1	3.2

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*Cell means are corrected for the covariate high school grades.

**S1 is General Atmosphere Satisfaction, S2 is Social Satisfaction, S3 is Academic Satisfaction, S4 is Financial/Persistence Satisfaction, SP1 is General Self-Perception, SP2 is Academic Ability Perception, CG is College Grades, and PER is Persistence.

Table 6-52

Comparisons of Physically Handicapped and Modal Students in Selective and Nonselective Institutions*

Institution Type	Success Index**	Physically Handicapped	Modal
Selective	S1	.33	.16
	S2	.08	-.21
	S3	.22	.01
	S4	-.09	.29
	SP1	18.4	18.6
	SP2	5.6	6.1
	CG	2.96	2.76
	PER	3.3	3.3
Nonselective	S1	.15	.04
	S2	-.17	-.05
	S3	-.05	.02
	S4	.16	.08
	SP1	17.5	18.7
	SP2	5.8	6.1
	CG	2.56	2.68
	PER	3.3	3.2

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*Cell means are corrected for the covariate high school grades.

**S1 is General Atmosphere Satisfaction, S2 is Social Satisfaction, S3 is Academic Satisfaction, S4 is Financial/Persistence Satisfaction, SP1 is General Self-Perception, SP2 is Academic Ability Perception, CG is College Grades, and PER is Persistence.

(3) Summary

Our analyses of differences in success indices of physically handicapped and modal students have substantiated some of the earlier findings. There are differences between these two groups in the values of the success indices and these differences are most pronounced in the self-perception indices. In two instances, modal and physically handicapped differences are moderated by institution type. The physically handicapped students at institutions not hosting SSDS programs differ less from modal students than do physically handicapped students at participating institutions. Physically handicapped students at selective four-year institutions typically exhibit higher values on most success indices than physically handicapped students at nonselective four-year institutions. The same difference holds for modal students, but for this latter group, the differences are not as great.

f. Summary

Our examinations of institutional characteristics in relation to student success, considering ethnicity as well as disadvantaged or modal classification, have yielded some interesting and consistent results. We have observed major differences in student success indices as related to ethnicity. All indices of success have contributed to these differences, and such differences have been primarily reflected in differences between students from the minority groups on the one hand and white students on the other, with the white students showing higher average success indices. Within the traditional white-oriented system of postsecondary education, it is not surprising that the white student--poor, physically handicapped or not--appears to have something of an advantage over the minority student. Prior research has fully documented these differences, as reported in Chapter 2.

Further we find to a lesser extent differences between poverty level and modal students on the success indices. Not all of the indices of success contribute significantly to these success vector differences. The major differences seem to be in the areas of satisfaction with financial and persistence matters (as could be expected), and the self-perception indices. Poverty level students are less satisfied with their financial status and see themselves in a less positive light than do the modal students. It is interesting that while perception of academic ability is typically lower for the poverty level students, differences in college grades are not significantly different when high school achievement is taken into account.

Additionally, we have seen suggestions of a weak but real interaction between ethnicity and disadvantagement. Strongest contributions to such interactions have come from college grades, academic satisfaction, and self-perception of academic ability. These indices, of course, have the common element of college academic achievement. The nature of this interaction is a magnification of differences between white students and minority group students within the poverty level group, suggesting that being nonwhite and poor in a predominantly white institution is a greater hinderance to success than the simple additive hinderance of being poor and of being nonwhite.

Differences between success indices of students in institutions of different types exist for all our analyses either as "main effects" or as interactions with ethnicity or disadvantagement. Some differences, though statistically significant, are relatively minor. Other differences, such as those attributed to the comparison between community colleges and four-year institutions, are quite pronounced, with success indices being considerably higher for the community college students. Such institutional differences are related, for one or another of the comparisons, to each of the specific success indices.

The matter of interaction of institution type with student ethnicity or disadvantagement classification needs further discussion. Such interactions are, for the most part, interactions of ethnic group and institution type. Disadvantagement interactions with institutional type, where found, were typically exemplified by a reduction of success differences between poverty level and modal students at one of the types of institution under consideration. Ethnic group by institution type interactions were typically explained by relatively small differences in success indices for white students at the various types of institutions coupled with relatively larger differences for minority students. In addition to the magnitude of these differences, some directional differences involving two or more ethnic groups were apparent.

The results of the present analyses are quite consistent with those reported in other investigations in that disadvantaged/modal differences seem to be overshadowed by, and in some cases moderated by, ethnic group differences. Moreover, our findings have underscored the strong relationships among institutional characteristics and student success indices. Some differences among institutional types were consistent for all students while other institutional type differences were associated with ethnic group or disadvantagement classification. The occurrence of such relationships has clear implications for research and analysis: research designs and analyses that do not recognize and treat differences attributable to institutional characteristics may result in inappropriate conclusions.

D. Programmatic Success Correlates

In examination of correlates of student success, to this juncture, we have concentrated primarily on differences along dimensions of institutional classification or student classification in terms of ethnic group membership and disadvantagement. The model of programmatic attention to the disadvantaged (see Figure 6.1, p. 6-2) suggests that any influence of programs could be moderated by differential input or by differential operation of external processes. Prior analyses have indicated that input to such programs is quite likely different (i.e., the disadvantaged student participant differs from the modal participant or nonparticipant along certain dimensions). Moreover, prior analyses have indicated that a major external process--the host institution--is apparently differentially related to both student success in general and the success of disadvantaged students relative to their modal classmates. With the results of these prior analyses in mind, we turn to an examination of relationships between student success and student participation in and perceived usefulness of specific offered services or programs.

The Student Questionnaire was not designed to determine a student's participation in a general program (such as SSDS programs), rather, it attempted to identify student exposure to and evaluation of programmatic elements which, it was anticipated, would have reasonably high commonality among the diverse institutional environments present in this study. The specific questionnaire item designed to elicit such information was item 44 (see Appendix A), which listed 30 distinct programmatic elements. Some discussion regarding participation rates for and perceived usefulness of these elements (on a fairly gross level) has been presented in Section 6-B above. Here we consider the relationships of responses to item 44 and our defined indices of student success.

1. Preliminary Consideration

In light of the preceding analyses, the reader is now aware of the broad range of variables related to the success indices used. Before examining the relationship of success indices to various subsets of programmatic elements, it would seem desirable to control for those institutional effects that have been established. If, for example, a specific institution (or type of institution) was associated with high values on the success indices for students in general, then in an aggregate analysis, the relationship between disadvantaged student success and programmatic elements which were more common at that institution could be spuriously inflated.

By this point, the reader has seen a rather marked shrinkage of cell sizes through a succession of cross-classifications of students as to ethnicity, disadvantaged status, and institutional type. At the level of specific institutions, cell sizes are reduced to zero in many instances. Nevertheless, our analyses show that student success is related to institutional factors and that they should therefore be controlled in subsequent analyses. Since institution type (or specific institution) is not a quantitative variable, partialing these effects by standard covariance techniques is not possible.

Because neither covariance nor blocking techniques were feasible the following approach was taken. For disadvantaged students (both poverty and physically handicapped) each success index was expressed as a deviation from the mean value of the index among the modal students at the same institution. While this technique is not without some difficulties both conceptually (in light of the race by disadvantagement interactions) and technically (in light of differential stability of estimates of modal student means among the various institutions), it does serve the purpose of removing particular associations of specific institutions with higher or lower success index values of students in general. The majority of subsequent analyses are based on the subset of disadvantaged students and, unless otherwise stated, the success indices used in these analyses are expressed relative to the modal group at the student's particular institution.

A second consideration is the possibility that certain program elements may be associated with specific types of institutions thus confusing impact of program element with impact of an institution type. Toward an understanding of the extent of this potential problem, analyses were performed using information from the Institutional Questionnaire (see Appendix A). Institutions reported the presence or absence of 26 of the 30 program elements listed in the Student Questionnaire.[1] Institutional responses were analyzed considering institutional differences in judged success, SSDS participation, 2 or 4 year status, public or private control, predominant student ethnicity, selectivity, and residentiality. No consistent relationships were observed between the types of institutions and the reported presence of particular program elements on campus. In the very few instances where significant relationships were observed, they were quite reasonable (e.g., 4 year colleges are much more likely to have programs to help the student in choices regarding graduate school).

A final matter for consideration relates to the reliability of student report of exposure to particular elements of programs. The information provided in item 44 of the Student Questionnaire allows examination of the concurrence of students within an institution. The first response to item 44 is a simple statement of the presence or absence of the various elements at that campus. Letting p represent the proportion of disadvantaged or modal students at a given institution reporting the existence of a particular program element, the index of agreement p' (Table 6-50) is p or 1-p, whichever is larger. Lack of agreement is greatest when half of the students report an element on campus while the other half report that the element does not exist, with a resulting p of 50%. Table 6-50 presents the maximum, minimum, and median value of p' over the institutions from which student data were obtained (N-102). It can be seen that, with very few exceptions, p' ranges from complete lack of agreement (50%) to complete consensus (100%) among students at these 102 institutions. Further, median agreement for the majority of programmatic

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[1] Information regarding remedial courses, small classes, differing ethnicity of available counselors, and opportunity for student-faculty interaction was not obtained from institutions.

Table 6-50

Agreement* of Students Within Institution as the Existence of Specified Program Elements on Their Campus

	Student Type					
Program Element	Modal			Poverty Level		
	Minimum	Maximum	Median	Minimum	Maximum	Median
1. Tutoring by other students	52%	100%	89%	50%	100%	89%
2. Tutoring by faculty	50	100	68	50	100	66
3. Professional counseling for personal problems	50	100	80	50	100	76
4. Professional counseling on job or career choices	50	100	80	50	100	75
5. Professional counseling on academic problems	55	100	85	50	100	78
6. Professional counseling on financial problems	56	100	80	50	100	77
7. Remedial courses	50	100	60	50	100	61
8. Student loan or scholarship	50	100	96	50	100	94
9. Work-Study program	54	100	91	50	100	93
10. Student Health Services	54	100	89	50	100	84
11. Help in choosing courses and planning my program of study	55	100	93	50	100	87
12. Independent study	50	100	71	50	100	66
13. Honors program	52	100	74	50	100	69
14. Cooperative Work Programs	50	100	68	50	100	64
15. Courses or programs in reading improvement	50	100	76	50	100	77
16. Courses or programs in improving writing skills	50	97	66	50	100	65
17. Assistance in finding housing	50	100	67	50	100	66
18. Assistance in finding part-time employment	50	100	78	50	100	75
19. Reduced course load	50	100	60	50	100	60

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*Figures reported are minimum, maximum, and median percentages over all institutions providing student data (N-102) of students in agreement at an institution. Lowest agreement value is 50%.

Table 6-50 Continued

	Student Type					
	Modal			Poverty Level		
Program Element	Minimum	Maximum	Median	Minimum	Maximum	Median
20. Heritage of minority groups	51%	99%	63%	50%	100%	63%
21. Help in deciding whether to go to graduate school or not	50	100	63	50	100	61
22. Help in choosing a graduate school	50	93	62	50	100	60
23. Help in learning how to study more efficiently	50	93	63	50	100	65
24. Having faculty of differing racial or ethnic background	50	100	75	50	100	68
25. Help in improving my skills in working with numbers	50	100	60	50	100	63
26. Instruction or good advice on how to do well on tests	50	92	61	50	100	60
27. Help in finding a job after college	50	100	70	50	100	66
28. Having classes with small numbers of students	50	100	80	50	100	71
29. Having a counselor of your own race or ethnic group*	50	94	68	50	100	70
30. Opportunities to get to know the faculty	50	100	67	50	100	65

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*Agreement in this case is dependent on race of student and as such will reflect ethnicity differences of students at an institution as well as lack of student agreement within a specific ethnic group.

elements is not impressive. It is somewhat distressing that *the median agreement for poverty level students is most often less than for modal students*. This may be due to the fact that programs containing such elements are not designed specifically for the disadvantaged or are not adequately publicized. It could also be due to simple failure on the part of students to relate a particular element as specified in the questionnaire item to a known program on campus. In any event, given the extent of disagreement existing as to the existence of particular program elements, *participation information provided by students is somewhat suspect*. This possible limitation on the data should be kept in mind in consideration of subsequent analyses.

2. Precollege Programs

Prior to examination of relationships of the relative success indices of disadvantaged students with college level program elements, it is worthwhile to turn briefly to an examination of the relationship of these indices with participation in precollege programs. One item of the Student Questionnaire requested information regarding participation in such programs. The Multivariate Analysis of Variance approach, described in Section 6-C, was used for this analysis, and only the financially disadvantaged students were considered. These students were further blocked by their ethnic classification. Due to the fact that participation rate in precollege programs was small (see Section 6-B) and due to the relatively small number of cases in some ethnic groups, only black, Chicano and white students were considered in this analysis. The result of the analysis is presented in Table 6-51. From this table we see that there is no *interaction* of participation and ethnicity, but that there is a relationship between the relative success indices of poverty level students and their participation in precollege programs (there is also a relationship with student ethnic classification, but this relationship has been documented and discussed elsewhere). The nature of the relationship is that *poverty level students who have participated in precollege programs (such as, but not restricted to, Upward Bound, Educational Talent Search, etc.) show higher relative satisfaction with general institutional atmosphere and with financial and persistence matters as well as slightly higher persistence*. The nonparticipating group showed higher values on all remaining indices, including college grades and the self-perception indices. Reexamination of the data by univariate tests for each index separately showed significant differences between the participating and nonparticipating group only in terms of social satisfaction, satisfaction with financial and persistence matters and the two self-perception indices. For all the analyses described above, high school grades were used as a covariate. *The relationship between participation in precollege programs and relative student success is not clear-cut in that it is associated with higher values for some relative success indices and lower values for others*. In any event, selection processes used by such precollege programs could explain the relationships found.

3. Knowledge of Availability of Programmatic Elements

Previous discussion has been devoted to the agreement of students regarding the presence or absence of specific program elements on campus. An external indication of presence of elements is available for 26 of the elements

Table 6-51

Analysis* of Differences in Relative Success of Poverty-Level Students by Ethnicity and Participation in Precollege Programs

Hypothesis Tested	df Hypothesis	df Error	F
Participation	8	2396	4.31**
Ethnicity	16	4792	9.88**
PxE Interaction	16	4792	1.27

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*Multivariate analysis of covariance with high school grades as covariate using Wilks' Lambda Criterion.

**Significance at .01 level.

from the Institutional Questionnaire. Given that institutionally provided data is a valid index of existence of programmatic elements[2], then the preparation of students at a given institution agreeing with the institutional report is an index of student knowledge of availability of the elements. Analyses were therefore undertaken to examine the extent of such student institution agreement and to determine if such agreement was related to the SSDS participation status of the institution.

Item 44 (see Appendix A) of the Student Questionnaire actually solicited up to three responses regarding each of the programmatic elements: (1) a statement regarding the perceived existence of the element on campus; (2) a statement regarding exposure to that program element, given its existence on campus; and (3) an evaluation of the benefits derived from participation, given exposure to the element. The following logical imputation was performed: (1) if a student answered the evaluative part of the question, he was assumed to have been exposed to the element provided he did not specifically answer to the contrary; (2) if student indicated exposure to the element (either specifically or through the first imputation) then the element was assumed to have existed at his institution provided he did not specifically answer to the contrary. The first of these imputations is somewhat sounder than the second since a student may have participated in some element of a program at an institution other than the one he was currently attending. There is, of course, the likelihood of error in either event, since both assume that responses to prior parts of item 44 were omitted by the respondent in his answering later parts.

The extent of agreement of poverty level students with institutionally reported presence or absence of 26 programmatic elements is given in Table 6-52. A direct comparison of these results with those reported in Table 6-50 is not possible because of the imputation performed and the fact that only a subset of institutions (those providing both student and institutional data) are considered in the results of Table 6-52. One striking feature of the results is that for some institutions there is a complete disagreement of students and institution as to the presence or absence of a specified element. This could represent misperception (or differential perception) of students or institution, or as stated earlier it could reflect poor publicity on the part of the institution of availability of certain student services. Should the latter case be true, it is quite disturbing that poor students are not aware of services that are available to them and which may facilitate their completion of their course of study.

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[2] This may be a poor assumption considering the overall lack of quality in the Institutional Questionnaire data. Further, feedback from institutional representatives often indicated that the Institutional Questionnaires were completed by persons quite unfamiliar with student programs. Thus, in the limiting case, the analysis presented here may be no more than an indication of the extent of reliability between two reporting sources (student and institution) as to the existence of program elements on campus.

Table 6-52

Poverty Level Student Agreement* with Institution as to Existence of Specific Program Element on Campus

Programmatic Element	Minimum	Maximum	Median	Number of Institutions Considered
1. Tutoring by other students..................	7%	100%	92%	90
2. Tutoring by faculty......	15	100	69	84
3. Professional counseling for personal problems....	21	100	84	91
4. Professional counseling on job or career choices..................	8	100	81	90
5. Professional counseling on academic problems.....	22	100	85	88
6. Professional counseling on financial problems....	7	100	80	86
7. Student loan or scholarship..............	0	100	96	92
8. Work-Study program.......	0	100	95	90
9. Student Health Services..	18	100	89	87
10. Help in choosing courses and planning my program of study.................	9	100	92	90
11. Independent study........	13	100	75	80
12. Honors program...........	7	100	73	76
13. Cooperative Work Programs	20	100	53	77
14. Courses or programs in reading improvement......	5	100	82	90
15. Courses or programs in improving writing skills	18	100	71	86
16. Assistance in finding housing..................	0	100	63	89
17. Assistance in finding part-time employment.....	21	100	80	91
18. Reduced course load......	0	100	63	84
19. Heritage of minority groups..................	19	100	60	88

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*Figures reported are minimum, maximum, and median percentages of students in agreement with institutionally provided indication of presence or absence of the specific elements. Minimums, maximums, and medians are taken over the specified number of institutions for which both student and institutional data were provided.

Table 6-52 Continued

Programmatic Element	Minimum	Maximum	Median	Number of Institutions Considered
20. Help in deciding whether to go to graduate school or not..................	14%	100%	61%	86
21. Help in choosing a graduate school..........	18	100	58	85
22. Help in learning how to study more efficiently...	17	100	69	87
23. Having faculty of differing racial or ethnic background...............	0	100	45	78
24. Help in improving my skills in working with numbers..................	19	100	56	85
25. Instruction or good advice on how to do well on tests....................	0	100	57	81
26. Help in finding a job after college...........	37	100	71	91

Considering the median proportions given in Table 6-52, one obtains a somewhat brighter picture. To the extent that the figures reflect lack of knowledge on the part of the poverty level students (and not lack of knowledge on the part of institutional officials) one would assume that considerable attention should be devoted at some institutions toward communicating to poverty level students the extent of available services.

Further analyses were performed on these data to determine if knowledge of program availability was greater among poor students at institutions hosting SSDS programs. The vehicle for this analysis was the median test.[3] There was no indication of any relationship between institutional SSDS involvement and knowledge of the existence of the various program elements by poverty level students at those institutions. None of the analyses approached even lenient levels of statistical significance. Further, there was no directional trend favoring either SSDS participating or nonparticipating institutions; of the 26 tests performed exactly half favored SSDS institutions (i.e., the proportion of SSDS institutions with above median poverty student knowledge was greater than the similar proportion for the nonparticipating institutions) while the other half favored the nonparticipating institutions.

There are, as pointed out previously, some difficulties in interpreting the measure used here for student knowledge. Still, it is disturbing that agreement between poverty level and administration as to available facilities is no greater at SSDS participating institutions than at nonparticipating institutions. To the extent, however, that larger numbers of poor students exist at SSDS institutions, then similar levels of publicity effort at both types of institutions would be expected to meet with greater success at those institutions where the number of students to be reached was smaller. The lack of difference between the two institution types could thus result from greater efforts at SSDS institutions but with similar observable results due to a larger target audience at the SSDS institutions. Whatever the reasons, there is considerable room for improvement in publicizing the availability of services at both participating an/ nonparticipating institutions.

4. Perceived Helpfulness of Exposure to Programmatic Elements as Associated with Institution Type

Among those poverty level students stating exposure to specific program elements, it was anticipated that there might be relationships among the student-perceived helpfulness of the elements and certain dimensions of institutional classification. The two dimensions of immediate concern to the present study were (1) judged institutional success with disadvantaged students, and (2) institutional participation in the SSDS program. Item 44 of the Student Questionnaire provided a scale whereby participants in the various elements of program service to students could rate the extent of "helpfulness" of participation. Participants' responses to these items were cross-tabulated with the two institutional dimensions considered.

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[3] The median test is a chi square test to determine if two or more groups can be considered to have come from populations with a common median. The groups are divided into those falling above and those falling below the common median for the entire group. The resultant m by 2 contingency table may then be subjected to a chi square test for homogeneity.

When judged success of institution was considered, there were no differences in the perceived helpfulness of exposure to any of the elements among the three categories of institutions. That is, the judged success of an institution with the disadvantaged had no relationship to the extent to which poverty-level students in the institution saw exposure to program elements as helpful to them. When these comparisons were made within the three major ethnic groups (black, Chicano, and white) the same results obtained (i.e., no difference in perceived helpfulness as a function of institution "success").

Considering the status of the institution relative to hosting an SSDS program, a similar situation obtained. For only one of the 30 elements listed was there a significant relationship between institution SSDS participation and perceived helpfulness of exposure to that programmatic element. The element for which this difference was found was that of "having a counselor of your own race or ethnic group." Students at institutions hosting SSDS programs saw counseling by one of the same race as more helpful than those at nonparticipating institutions. Examination of this difference within racial group showed it to be more distinct in the Native American, black, and Puerto Rican subgroups; Chicano students showed no difference in the perceived helpfulness of this element as a function of SSDS participation of institution.

Thus, along the two institutional dimensions considered here (ones which theoretically might be expected to show a difference), there was very little difference found between institution types and the perceived helpfulness of the various programmatic elements by those students who had participated. We have documented in Section 6-B the fact that proportionally few participants in any programmatic element found these elements not helpful. Perceived helpfulness, however, may be too subjective a dimension for evaluation of any existing relationships between SSDS participation status of an institution and helpfulness of programs provided (it should be recalled that the item soliciting "helpfulness" of participation in a particular program element did not specify the dimensions along which such helpfulness should be adjudged). Previously reported analyses of success indices of students at participating and nonparticipating institutions, while not addressing program participation, also failed to show any clear-cut advantage for the institutions in the SSDS program. Those analyses were also open to challenge since they implicitly assume more-or-less equivalent input and processing of the poverty level students at these two types of institutions (although high school grades were used as a correction variable). As measured in this study, there is no indication that programs at SSDS participating institutions are more helpful than those at nonparticipating institutions. It seems a reasonable assumption, however, that there would be less program availability at the SSDS institutions were SSDS funds not available.

5. Relationships between Perceived Helpfulness of Participation and Measured Student Success

Additional analyses were undertaken to determine the extent to which perceived helpfulness of exposure to program elements is also reflected in the measures of student success previously developed. These analyses were performed for those subsets of poverty level students stating exposure to the various elements. Multiple correlation[4] of the set of the relative success indices (expressed as a difference from the mean vector of modal student indices within the institution) with stated helpfulness of program participation were calculated. The program elements were examined individually and the multiple regression analyses were performed within ethnic group. Only the three largest ethnic groups (i.e., white, black, and Chicano) were considered, since exposure to some elements was proportionally small, reducing in some instances the number of student participants to a very small number within the smaller ethnic groups. The results of these analyses are reported in Table 6-59. From this table it can be seen that there are considerably fewer significant relationships within the Chicano and white student groups than within the black student group. While magnitudes of the expressed relationships are similar for all three ethnic groups considered, the number of cases on which these relationships were computed is largest in the black group. All other factors remaining constant, a relationship is more likely to be a significant one when computed on a larger number of cases. The interpretations of the significant relationships are quite straightforward in that all beta weights[5] were positive--indicating direct relationships between perceived helpfulness of the specific programmatic element and the relative success indices. That is to say, of those poverty level students directly exposed to a program element through participation, greater perceived helpfulness of that exposure was in fact related to higher values of the success indices relative to modal students within the same institutions.

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[4] Multiple correlation expresses the relationship between a set of variables on the one hand and a single variable on the other hand. Effectively, a weighted linear combination of the set of variables is determined which holds the highest linear relationship with the single variable.

[5] Beta weights are those weights associated with each of the variables in the set in producing the linear combination showing maximum relationship to the single variable. The weights can be expressed as a function of the partial correlation of a variable in the set with the single variable and the standard deviation of the variable in the set.

Table 6-59

Relationships between Perceived Helpfulness of Participation in Specific Program Elements and Student Success for Poverty Level Students by Ethnic Classification

	Black		Chicano		White	
Programmatic Element	N	R	N	R	N	R
Tutoring by other students. . . .	741	.28*	176	.31	186	.20
Tutoring by faculty	544	.30*	94	.32	214	.24
Professional counseling for personal problems	451	.25*	94	.49*	189	.27
Professional counseling on job or career choices	491	.28*	116	.35	222	.43*
Professional counseling on academic problems	497	.28*	116	.39*	218	.38*
Professional counseling on financial problems.	667	.28*	181	.32	385	.38*
Remedial courses.	282	.28*	70	.31	97	.33
Student loan or scholarship . . .	880	.25*	224	.29*	548	.22*
Work-Study program.	761	.22*	173	.36*	399	.23*
Student Health Services	655	.22*	133	.17	343	.18
Help in choosing courses and planning my program of study. .	867	.30*	226	.34*	564	.37
Independent study	460	.22*	103	.36	176	.34*
Honors program.	299	.26*	44	.31	105	.31
Cooperative Work Programs	229	.26*	50	.41	55	.36
Courses or programs in reading improvement	522	.29*	121	.31	120	.28
Courses or programs in improving writing skills. . . .	381	.24*	92	.31	164	.27
Assistance in finding housing . .	289	.31*	60	.51	110	.23
Assistance in finding part-time employment.	420	.26*	129	.39*	213	.30*
Reduced course load	324	.24	65	.41	108	.23
Heritage of minority groups . . .	345	.17	92	.18	58	.55*
Help in deciding whether to go to graduate school or not . . .	315	.27*	69	.54*	94	.39
Help in choosing a graduate school	256	.28*	55	.50	73	.46
Help in learning how to study more efficiently.	543	.31*	117	.43*	180	.33*
Having faculty of differing racial or ethnic background . .	522	.24*	115	.29	191	.34*

Table 6-59 Continued

Programmatic Element	Black		Chicano		White	
	N	R	N	R	N	R
Help in improving my skills in working with numbers. . . .	401	.19	71	.49	126	.31
Instruction or good advice on how to do well on tests. . . .	553	.29*	123	.44*	197	.31*
Help in finding a job after college.	295	.35*	52	.43	83	.34
Having classes with small numbers of students.	769	.15	178	.25	502	.27*
Having a counselor of your own race or ethnic group . . .	686	.18*	132	.32	334	.35*
Opportunities to get to know the faculty	622	.27*	137	.33	407	.30*

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*Significant relationship at .01 level

The greatest partial relationships, in terms of significance tests of the individual beta weights assigned, were typically in the area of the satisfaction indices, most notably satisfaction with general institutional atmosphere. There were exceptions, however. In the black student group, greater perceived helpfulness of faculty tutoring was associated with greater perceived helpfulness of professional counseling in the areas of personal problems, job or career choices, and academic problems. Greater relative persistence was also associated with greater perceived helpfulness of remedial courses and help in finding a job after college.

The relationships discussed here are real and in all instances positive. That is, the perception of a program element as having been helpful is associated with higher relative values of the success indices and perception of an element as not helpful is associated with lower relative values. The analyses further suggest some differences between ethnic groups in these perceptions. While not presented here, the tests of individual beta weights show that the relationships are stronger for different success indices depending on ethnic classification. In the main, the greatest contributions to these positive relationships were among the softer indices of success (i.e., student satisfaction) which is intuitively quite reasonable. For a smaller number of the program elements, contributions to the relationships also come from the more objective success indices (i.e., reported persistence and college grades).

6. Relationships between Participation in Program Elements and Student Success

A major question within the framework of this study is the relationship between student exposure to the various programmatic elements and the value of the success indices. A different approach is taken in these analyses, the students' responses to item 44 of the Student Questionnaire were scaled to produce two related indices of student exposure to the program elements.

Program elements were first grouped according to their basic characteristic into the following categories:

a. Remedial Elements:
Remedial courses; Courses or programs in reading improvement; Courses or programs in writing skill improvement; Help in improving my skills in working with numbers; Reduced course load.

b. Other Academic Elements:
Tutoring by other students; Tutoring by faculty; Professional counseling on academic problems; Help in choosing courses and planning my program of study; Independent study; Help in learning how to study more efficiently; Instruction or good advice on how to do well on tests; Having classes with small numbers of students.

c. Financial Elements:
Professional counseling on financial problems; Student loan or scholarship; Work-Study program; Cooperative Work Programs; Assistance in finding part-time employment.

d. Personal Service Elements:
Professional counseling for personal problems; Student Health Services; Assistance in finding housing.

e. Career Planning Elements:
Professional counseling on job or career choices; Help in deciding whether to go to graduate school or not; Help in choosing a graduate school; Help in finding a job after college.

f. Minority Group Specific Elements:
Heritage of minority groups; Having a counselor of your own race or ethnic group.

While element sets (a) through (e) are applicable to all poverty level students, the last element set (f) is not applicable to white students.

Within the six sets defined above, two indices of program participation were computed. The first index was the number of elements within a set to which students indicated exposure. This index can, obviously, take on different maximum values depending on the set considered (e.g., a maximum value of 8 for set b and a maximum value of 2 for set f). Missing data (subitem nonresponse) creates something of a problem in constructing this index. For present purposes, the participation index was considered "missing" only if the student failed to respond to all subitems referring to elements within a set. This equates an omitted response nonexposure, given at least one response relating to an element within the set. The second index of participation was a monotonic transformation of the first index, which simply indicated participation or nonparticipation status, without differentiation as to the number of elements to which the individual had been exposed. That is, if the first index was 0 then the second index would also be 0; however any value of the first index greater than 0 would map to a value of 1 on the second index redundant, the need for two indices is related to sample sizes and the extent to which each may be effectively used in analysis.

a. Relationships between Element Set Participation

While the six participation indices (of either type) are derived from separate elements, it is certainly not safe to assume that the indices are independent. Exposure to one or more of the elements in one set may be related to exposure to one or more of the elements of some other set. Since subsequent analyses will treat the element sets separately, knowledge of relationships between the six indices will provide a more complete framework in which to interpret subsequent results.

The relationships among exposure indices are presented in Table 6-60. The specific indices used were those reflecting exposure and nonexposure. Thus, the relationships expressed are those between two binary variables. An appropriate measure of such relationships is the Phi Coefficient presented in Table 6-60. As can be seen, all reported relationships are small but significant. Furthermore, all of the relationships are positive, indicating that exposure to the elements of one set is directly related to exposure to the elements of other sets. The correlation of the participation indices suggests that subsequent analyses of element exposure will be somewhat

Table 6-60

Relationships between Exposure to Different Element Sets among Poverty Level Students

	Element Set				
Element Set	Other Academic	Financial	Personal Service	Career Planning	Minority Group Specific*
Remedial	.22 (2998)	.13 (2984)	.22 (3016)	.27 (3016)	.27 (2134)
Other Academic		.26 (3061)	.30 (3261)	.26 (3261)	.32 (2[illegible])
Financial			.21 (3077)	.17 (3077)	.16 (2182)
Personal Service				.26 (3283)	.32 (2356)
Career Planning					.28 (2356)

Note: Tabled entries indicate the Phi coefficients computed from 2 x 2 contingency tables of exposure status (yes-no) to the different element sets. Numbers in parentheses indicate the number of cases on which the coefficients were based. All tabled entries represent significant relationships at the .001 level.

* These relationships were computed only for the subset of nonwhite poverty level students.

confounded (i.e., since exposure to elements of one set is related to exposure to elements of another, the relation between either of the participation indices to measures of student success is attenuated). The fact that many programs for the disadvantaged (particularly SSDS programs) include elements from several of the sets could explain the relationships, since participation in such multifaceted programs would imply simultaneous exposure to more than one set of elements.

b. Relationships of Participation Indices and Ethnicity to Success Indices

In these analyses, the multivariate analysis of variance approach was employed to the data for poverty level students. The eight relative success indices were used as the variables, ethnicity and the binary participation indices were used as factors.[6] In all analyses, high school grades were used as a covariate. Six analyses were performed, one for each of the six element sets described above.

The results of the analyses are presented in Table 6-61. There is no ethnicity by participation interaction in any of the analyses, suggesting that any relationships found between exposure to element sets and the success indices are not appreciably moderated by ethnic classification.

Since the relationship between ethnicity and relative success indices is redundant over the first 5 analyses (and somewhat redundant in the sixth analysis, which excludes only the poor white group), it is reported only for analyses 1 and 6. There is a significant relationship revealed in all analyses between the poverty level student's ethnic classification and his measured relative success indices. This relationship has been previously documented in other analyses, appearing as an ethnicity by disadvantagement interaction, and requires only minimal further discussion. It is interesting to note that when poor white students are removed from the analysis (analysis 6) ethnicity is still related to relative success, even among the minority groups.

Exposure to elements of four of the six sets is significantly related to the success indices. Specifically, remedial elements, other academic elements, career planning elements, and minority group specific elements show such relationships. The nature of these relationships are, however, somewhat different. Moreover, reexamination of the relationships by univariate tests of the specific success indices separately showed different success indices contributing more to some of the relationships than to others.

Univariate tests indicated that the only significant zero order relationships between exposure to remedial program elements and the success indices were in the areas of social satisfaction, academic satisfaction, and college grades. The nature of these relationships were, however, quite different. Exposure to "remedial elements" was directly related to relative

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[6] The reader is again cautioned to avoid unjustifiable causal relationships which might be conveyed in analysis of variance terminology.

Table 6-61

Results of Analyses for Relationships of Exposure to Six Element Sets and Ethnicity to Relative Success of Poverty Level Students

Element Set Considered	Hypothesis Tested	Degrees of Freedom for Hypothesis	Degrees of Freedom for Error	F
1. Remedial	Ethnicity	48	12438.0	4.658*
	Participation	8	2527.0	3.404*
	ExP Interaction	48	12438.0	1.052
2. Other Academic	Participation	8	2584.0	4.000*
	ExP Interaction	48	12718.4	1.519
3. Financial	Participation	8	2566.0	2.430
	ExP Interaction	48	12629.9	1.037
4. Personal Services	Participation	8	2544.0	1.268
	ExP Interaction	48	12521.6	1.280
5. Cover Planning	Participation	8	2539.0	3.237*
	ExP Interaction	48	12497.0	1.207
6. Minority Group Specific	Ethnicity	48	7447.8	3.331*
	Participation	8	1708.0	2.773**
	ExP Interaction	48	7447.8	1.083

Note: Using Wilks' Lambda Criterion, high school grades are used as a covariate throughout.

* $p < .001$

**$p < .005$

social satisfaction, but inversely related to both relative academic satisfaction and relative college grades. That is, exposure to the remedial elements by poverty level students was associated with lower relative college grades, lower relative satisfaction with academic matters, but higher relative social satisfaction. On the other hand, lack of exposure to these elements was related to relatively higher college grades and academic satisfaction, but with lower social satisfaction. The inverse relationships may be easily interpreted when one considers the type of student who is typically exposed to remedial elements; one who, almost by definition, needs academic help in at least one area. It is not surprising that such students have lower relative grades and satisfaction with academic matters than those who do not participate in such activities (and who probably do not need such services as greatly).

Univariate analyses for "other academic elements" showed significant ($p < .05$) relationships between exposure to such elements and relative general satisfaction, financial satisfaction, and persistence. In all instances the relationships were direct. Poverty level students receiving these services also tended to have greater relative satisfaction in the two areas specified and greater relative persistence than did poverty level students not receiving these services. Univariate analyses for "career planning elements" showed significant positive relationship between receipt of such services and relative social satisfaction and general self-perception.

By far the greatest number of significant univariate relationships ($p < .05$) between success indices and exposure to element set was obtained for set f. Having a counselor of one's own race or being exposed to courses on the heritage of minority groups was positively related to relative general satisfaction, academic satisfaction, financial satisfaction, college grades, and both indices of self-perception.

In sum, the overall relationships between exposure to different sets of program elements almost unanimously reflect positive relationships between exposure to the element and higher indices of success on the part of disadvantaged students relative to their modal peers. It is difficult to restrain from inferring some causality from these relationships; however the problem of self-selection (or externally operating selection) may be influencing the relationship in some manner. In the case of the negative relationships obtained for the remedial elements, the selection factor was a fairly obvious explanation. For other relationships found, the selection argument is not as straightforward, and would in most instances be quite strained. Two basic problems exist in inferring causality from relationships such as these. The first is related to the selection problem, and is the problem of determining which of two variables is the antecedent and which is the consequent condition. For the majority of the positive relationships obtained it is difficult to see greater relative success as preceding program participation (unless the programs are selecting participants on the basis of such success variables), and it is much more natural to see program participation as the antecedent condition. The second problem is related to the possibility that some other variable (either unknown, unmeasured, or not considered in one's regression equation) is influencing both antecedent and consequent condition and therefore producing the observed relationship. This is quite possible for a rather complex modal of educational intervention. While one cannot discount the latter argument and can discount only partially the former, these results do suggest hypotheses that, for at least some of the elements, exposure provides the poverty level student with a service leading to closure of the gap between himself and his modal peers. It remains for further research to speak definitively to these hypotheses. Longitudinal studies with program participants and a matched comparison group of nonparticipants could resolve many of the questions raised above. In the following section, an attempt will be made to shed some further light on these hypotheses and will examine the interaction of institutional SSDS participation status on the relationships between program participation and relative success indices.

c. Relationships of Participation Indices and Institutional SSDS Participation to Success Indices

In these analyses, the same basic approach was used as in the previous analyses. The major differences were in the factors used and in the approach to the analysis. Since interaction of ethnicity and participation did not hold in the previous set of analyses, ethnicity was not used as a factor. Instead, SSDS participation of the student's institution was used. Further this factor was crossed with the *quantitative* participation indices, reflecting the number of elements in each set to which the student had been exposed.[7] The analyses were again performed separately for each element set. Analysis of the relationship of success indices to institutional SSDS involvement and any participation by institution type interaction were tested using the full modal; however, tests for participation relationships with success indices were somewhat different. Since the participation indices used here are quantitative, it is possible to examine the type of relationship through specific contrasts. The two specific contrasts considered were the *linear* and *quadratic*, assuming an equal interval metric. These two types of relationships, while not exhaustive (except for the minority group elements) are the relationships that are most easily interpretable and theoretically justifiable. High school grades were again used as a covariate.

The results of the six analyses are presented in Table 6-62. *In no case was the interaction between institutional SSDS participation and participation status a significant one*. This implies that whatever relationships exist bemoderated appreciably by the SSDS status of the institution which those students attend. Since it is quite likely that at many SSDS participating institutions there are poverty level respondents who are not in the SSDS program but who have been exposed to similar elements through some other program, this result does not speak directly to SSDS program participation *per se*.

The relationship between SSDS participation and the relative success indices of poverty level students is nonsignificant. The analysis for this

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[7] The use of this index was not possible in the prior set of analyses, since crossing of two factors (ethnicity and the quantitative participation indices), each with a large number of levels, would have produced empty cells.

Table 6-62

Results of Analvses for Relationships of Extent of Exposure to Six Element Sets and Institution Type to Relative Success of Poverty Level Students

Element Set considered	Hypothesis tested	Degrees of Freedom for Hypothesis	Degrees of Freedom for Error	F
1. Remedial	Institution	8	2553.0	1.844
	Participation (Linear)	8	2553.0	2.574**
	Participation (Quadratic)	8	2553.0	1.545
	IxP Interaction	40	11131.1	.892
2. Other Academic	Participation (L)	8	2605.0	4.854*
	Participation (Q)	8	2605.0	3.283*
	IxP Interaction	64	15031.8	.713
3. Financial	Participation (L)	8	2593.0	1.119
	Participation (Q)	8	2593.0	3.652*
	IxP Interaction	40	11305.4	.650
4. Personal Service	Participation (L)	8	2575.0	.774
	Participation (Q)	8	2575.0	1.560
	IxP Interaction	24	7468.9	1.022
5. Cover Planning	Participation (L)	8	2568.0	2.337
	Participation (Q)	8	2568.0	1.377
	IxP Interaction	32	9771.9	1.216
6. Minority Group Specific	Participation (L)	8	1714.0	1.961
	Participation (Q)	8	1714.0	.654
	IxP Interaction	16	3428.0	.596

Note: Using Wilks' Lambda Criterion, high school grades are used as a covariate throughout.

*p < .001

**p <.01

relationship is redundant over the first five analyses, and partially redundant for the sixth analysis. Results have therefore been reported only for analyses 1 and 6. This lack of relationship has been noted and discussed previously and does not warrant our attention here. Of greater concern are the relationships between success indices and the quantitative participation indices, to which we turn.

Only the linear trend of participation in the remedial programmatic element is significant. Reanalyses by use of univariate tests show precisely the same relative success indices related to degree of participation in these elements and the relationships are in the same direction as in the previous analyses. That is, the greater number of remedial elements participated in by a poverty level student, the lower tend to be his relative college grades and academic satisfaction and the higher tends to be his social satisfaction. It is extremely difficult to imagine how more extensive participation in remedial program elements could cause lower relative grades (although it could reasonably be seen to lower relative satisfaction with academic matters). The previously formulated conjectures regarding the nature of this relationship is, however, supported; specifically the greater the need experienced by the student (reflected in lower academic performance) the greater will be the number of remedial programs for which he finds himself eligible (and perhaps participating in).

Considering the "other academic elements" participation index, both linear and quadratic relationships were significant. Significant univariate tests indicated positive relationships of this participation index with relative general satisfaction, social satisfaction, financial satisfaction, general self-perception, and persistence. Univariate tests also revealed significant quadratic residuals for general satisfaction and persistence. Taken together the success indices showing both linear and quadratic relationships showed marked linearity over the first several levels of the participation index with a slight reversal at the extreme level of participation. Alternative explanations are appealing in this case. One can see how satisfied students with higher self-perception and greater persistence might tend to seek more tutoring, help in choosing a course of study, independent study, and so forth. Conversely one might postulate that greater participation in these elements leads to heightened satisfaction, persistence, and self-perception. Unfortunately, the latter postulate does not explain the linear relationships for financial satisfaction or the curvilinear relationships.

The reader may have been somewhat dismayed by the fact that financial element participation did not yield a significant relationship in the former set of analysis. An explanation for the previous lack of relationship may be seen in the results of Table 6-62. The relationship between the vector of success indices and the financial participation index is quadratic. The value of the quadratic relationship between these variables is easily seen on reanalysis of the data by univariate tests. Specifically, increasing degree of exposure to financial program elements is associated initially with increasing and then with decreasing relative college grades and persistence. Increasing degree of participation is also associated initially with decreasing and then with increasing relative satisfaction with social and financial matters. This particular pattern of relationships is difficult to explain using any modal of causality involving only the variables considered suggesting that greater parsimony might be gained from a modal incorporating a greater number of variables.

It should be noted that neither career planning nor minority group specific quantitative participation indices showed significant linear or quadratic relationships with the success indices, whereas both element sets showed significant relationships when the qualitative participation indices were used. For the three valued minority group specific elements the linear and quadratic trends are exhaustive orthogonal contrasts. In this case, the relationship appears to be monotone (i.e., exposure to either or both of the elements in this set is associated with higher values of relative success than exposure to either singly).

7. Summary

These analyses were primarily concerned with program elements in relation to the difference between the success index values of poverty level students and those of modal students. Several findings have emerged. First, there seems to be a relationship between participation in precollege programs and success of poverty level students relative to their modal peers. This relationship gives differential advantage to the participating and nonparticipating student, depending on the specific success index examined.

Second, there is considerable disagreement both among the disadvantaged students and between the students and institutional officials as to the availability of college level program elements on the campuses. This would strongly suggest that a considerable amount of publicity of available services among disadvantaged students is needed.

Third, there are small but positive and significant relationships between perceived helpfulness derived from exposure to various program elements and the relative success indices among the poverty level student group. These relationships seem to be more pronounced among the black student group.

Fourth, there are relationships between participation by disadvantaged students in certain sets of program elements and their success relative to modal students. For at least two of these sets of program elements, nonremedial academic related elements and elements specifically related to minority group identification, there seems to be some promise for hypotheses stating that participation in programs with such elements leads to increased success of the disadvantaged relative to the modal student.

Fifth, relationships between program participation and the relative success indices do not appear to be moderated to any considerable degree by a student's ethnic classification. Relationships that exist seem to be stable regardless of ethnic group considered.

Finally, institutional participation in the SSDS program does not seem to be related to either the relative success of its poverty level students or the knowledge of such students as to availability of services. Moreover, institutional participation in SSDS does not moderate relationships between program participation and relative success of disadvantaged students.

CHAPTER 7

The Disadvantaged Student - His Perceptions and His Recommendations as Reported in Interviews

A. Introduction

While a survey questionnaire provides a common data set permitting a systematic formulation and testing of hypotheses such as those reported in the preceding chapter, it also has particular limitations. For example, one major concern is that the questionnaire approach presses students into standard and preconceived alternatives for associations that explain the variance found in the critical variables. This seemed a particular risk when the focus of the study (unavoidably concerned with traditional or majority culture definitions of success and satisfaction) was on minority groups whose needs, whose reasons for attending college, and whose perceptions of that experience may differ sharply from those of the modal college student. Students from minority groups may also respond to their experiences in ways determined by their subcultures.

Thus, the RFP and the evaluation study plan called for in-depth interviews with a substantial subsample of the disadvantaged student population. The interview report that follows provides detailed information about the college life of disadvantaged students as they see it, at least as reported by the disadvantaged student cohorts who interviewed them. It will discuss what these students perceive as assets and handicaps in their progress in college, noting the effects of aspects they associate with their overall achievement and satisfactions.

In addition, it will speak to such questions as: How well prepared for college is the disadvantaged student? What things in his precollege experience have contributed to his participation in and benefit from the total college environment? In particular, how does he view Upward Bound, Talent Search and Special Services Programs, and what implications do these views have for program revision or the continued funding of elements therein? What is the picture for the disadvantaged student for whom the Trio programs have not been available?

The strategy for conducting the interviews, as noted in Chapter 3, was to employ upperclass student cohorts, matched by disadvantagement and ethnicity with their interviewee targets. These students, first assembled in groups for instruction in the purposes of the study and for practice in interviewing procedures, then returned to their campuses to conduct interviews with a prescribed sample of freshmen or sophomores, and to report the findings by (a) completing written interview guides and (b) reconvening to discuss with each other and the research team what they had found. The student interviewers were encouraged to translate the interview questions into their own language in order to pursue the basic purposes of each question. They were urged to improvise as necessary to determine why their cohorts had entered college, what they found there, how their experience might be improved, what their long-term aspirations and expectations were, and to record the answers as they were given. But of equal importance to the actual data they recorded on the interview protocol sheets may be the additional source of data made available by the reassembly of interviewers for report and debate.

The procedure employed was (1) to arm student interviewers with a variety of questions designed to encompass the important elements in the study; (2) to provide these interviewers to a representative sample of their peers, thus assuring some systematic exposure to the problems; and (3) to provide a group context for report, interpretation, debate, and leveling of important findings by the dynamic interaction of the group, after inverviewing had been completed. Thus, two sources of data emerged: the collected reports of the individual interviews, and the electronically recorded review and summary sessions. The report that follows will deal with each data source separately, but will discuss notable similarities and differences.

In this study, as noted previously, the term "disadvantaged" refers to students whose families are within the federal poverty income criteria (they may also have deficiencies in formal education) or who are physically handicapped. At least six minority groups can be identified among the interviewees: black, Chicano, native American, poor whites, Puerto Rican, and physically handicapped. A scattering of poor students who are members of other ethnic or minority groups were also interviewed, but not in sufficient numbers for abstracting subgroup characteristics.*

In-depth interviews were held, as previously noted, with 752 disadvantaged students from the several subgroups named, to determine their perceptions of their high school and college experiences, their reactions to various special programs, and their plans for the future, by 98 upperclass students representing the same minority groups and student bodies as those they interviewed. Hence, the findings reported in this chapter are derived from the experiences of a total of 850 disadvantaged students from 60 higher education institutions throughout the United States.

Of the total number of interviewees, 382 were females and 360 were males; 43 interviewers were females and 55 were males. Table 7-1 shows a breakdown of the interviewers and interviewees by minority group membership. (Appendix B provides a listing of institutions in which interviews were conducted.)

Blacks obviously represented the largest proportion of minority students in the interview sample. This preponderance of black students is in part a function of their greater involvement (than other minorities) in higher education, and in part attributable to a higher attrition of Chicano and native American interviewers and interviewees in this study.

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*NOTE: For example, interviews were held with 7 Chinese and 10 Filipino students, respectively. The interviewers from these two groups were emphatic in their comments regarding commonly-held myths and misunderstandings about their respective groups. Their remarks have been summarized and included in the conclusions section to this chapter.

Table 7-1

Student Interviewers and Interviewees, by Minority Groups

Minority Group	Number Interviewers	Number Interviewees	Percent
Black	40	347	46.1
Chicano	9	70	9.3
Native American	7	56	7.4
Physically Handicapped	7	51	6.8
Poor White	24	166	22.1
Puerto Rican	6	29	3.9
Others	5	33	4.4
TOTAL	98	752	100.0

The colleges and universities can be classified as follows:

- 23 public traditionally white four-year colleges or universities, 8 of which are highly or moderately selective, 10 somewhat selective, and 5 open door;

- 11 private white four-year colleges or universities, including 6 relatively selective and 5 relatively nonselective;

- 14 two-year private or community colleges, with 1 private predominantly black and 1 public predominantly black;

- 12 traditionally black four-year colleges or universities, with 6 public and 6 private.

Twenty-five of these 60 institutions received funds in the 1971-72 school year from the Division of Student Assistance for the Special Services Program for Disadvantaged Students, and 35 did not.

The reports of the disadvantaged student groups presented in this report were developed by intensive study of the interview reports, focusing first on coding and tallying of some central kinds of information, and then on review of the total body of material, including the transcripts of the postinterview review sessions, by research staff, minority students, and consultants. All sections, when initially completed, were submitted to one or more of the consultants and one or more of the involved student interviewers, for review of accuracy of information, or comments before their final formulation as herein presented.

B. Some Quantitative Characteristics of the Interview Sample

The major analysis strategy for the interview material was group study of the completed interview protocols and the transcripts of the review sessions, then the preparation of a synthesis of important themas. Prior to this, however, and based on the responses to the standard questions asked in the interviews, some categorical coding schemes were developed. In addition to coders from the research team staff, student coders were also employed toward the aim of continuing student involvement and of insuring that students' points of view were adequately represented. The resultant information provides some descriptive overview, presented in tabular form, of the total interview sample.

Most of the questions that were judged suitable for coding were straightforward and required direct answers (e.g., "Did you participate in Upward Bound?"). However, five subjective questions were selected, dealing with attitudes about various aspects of the college. For these five items, a test of reliability of coders' ratings was conducted. The rating procedure was repeated by using two additional coders on a random sample of 74 interviews, and agreement between raters determined by calculating Pearson Product-Moment correlation coefficients using the scale values (0-3) assigned by the pairs of raters. The results are shown in Table 7-2. With the exception of the question concerning quality of education, the correlations are sufficiently low to suggest that there is a strong degree of rater differences in interpreting the responses to the questions. The data from these five subjective questions should be considered suggestive only. Tests of significance of differences between ethnic groups were not considered justified.

It is interesting to note that coders 1 and 2 were project staff, while coder 3 was always a student of the same ethnicity as the respondents to the interviews coded. As might be expected, the staff coders tended to agree with each other to a higher degree than with the student coders (in spite of the fact that coders were assembled and trained together as a group). This may suggest, however, that the research staff missed subtle nuances in the students' responses. In any case, the limitations of imperfect agreement must be kept in mind.

Tables 7-3 through 7-7 show the student respondents' attitudes toward students, faculty, administration, the quality of education, and the college environment in general. Responses to each of these categories are shown by minority groups, e.g., black, physically handicapped, etc. As indicated, attitudes vary considerably from one target group to the other. On the whole, favorable attitudes were expressed toward students and faculty. Attitudes toward the administration were markedly unfavorable. Native Americans seem most divided in their attitudes toward the quality of education they are receiving; only they and the Chicanos fail to produce a majority rating of quality of education as excellent or good. The physically handicapped and poor white seem generally to be the most positive of the several groups over all five areas.

For information concerning factors that influenced the decision to attend college, a sample of interviews was scanned. Those categories that were clear-cut enough for 100% inter-rater agreement were listed; then, all interviews were read and statements fitting the various categories were tallied. Table 7-8 provides a summary of this information, by minority group.

Against other groups, blacks and "others" seem to feel noticeably more affected by parental influence in choosing to attend college. For Puerto Ricans, the influence of peers appears stronger than for the other groups. For the physically handicapped, the factor most frequently mentioned was obtaining vocational proficiency (salable skills).

Of special interest to the purposes of the study is "participation in a special precollege program" as an incentive or reason for going to college. Table 7-8 indicates that only 14.8% of the interview sample indicated that participation in such programs had influenced their decision to enter college although the data in Table 7-9 indicate that about 23% of the interviewees had participated in such programs. The data suggest that, at least in the sample involved, the poor white category was

Table 7-2

Inter-Rater Reliability of Coding Responses to Attitudinal Questions

Item 1: Attitude Toward Students

	Rater 2	Rater 3
Rater 1	.82	.65
Rater 2		.75

Item 2: Attitude Toward Faculty

	Rater 2	Rater 3
Rater 1	.74	.65
Rater 2		.56

Item 3: Attitude Toward Administration

	Rater 2	Rater 3
Rater 1	.75	.56
Rater 2		.69

Item 4: Quality of Education

	Rater 2	Rater 3
Rater 1	.82	.76
Rater 2		.82

Item 5: College Environment in General

	Rater 2	Rater 3
Rater 1	.66	.55
Rater 2		.64

Table 7-3

Respondents' Attitudes, by Minority Groups, Toward Students

N = 752

Group	Number Responding	Favorable	Unfavorable	Indifferent	Undecided
Black	304	36.8%	29.5%	30.2%	3.5%
Chicano	69	52.2%	27.5%	20.3%	-
Native American	45	60.9%	28.3%	8.7%	2.2%
Physically Handicapped	38	67.5%	17.5%	10.0%	5.0%
Poor White	156	65.2%	19.3%	12.4%	3.1%
Puerto Rican	29	62.1%	17.2%	20.7%	-
Others	25	59.2%	21.3%	12.7%	6.6%
Total Responses	666	50.2%	25.3%	21.4%	3.1%

Table 7-4

Respondents' Attitudes, by Minority Groups, Toward Faculty

N = 752

Group	Number Responding	Favorable	Unfavorable	Indifferent	Undecided
Black	316	41.2%	31.7%	24.3%	2.8%
Chicano	66	50.0%	18.2%	31.8%	-
Native American	43	56.5%	26.1%	10.9%	6.5%
Physically Handicapped	47	73.5%	10.2%	12.2%	4.1%
Poor White	145	72.6%	13.4%	6.4%	7.6%
Puerto Rican	29	62.1%	13.8%	24.1%	-
Others	29	51.3%	17.1%	31.6%	-
Total Responses	675	53.5%	23.3%	19.5%	3.7%

Table 7-5

Respondents' Attitudes, by Minority Groups,

Toward Administration

N = 752

Group	Number Responding	Favorable	Unfavorable	Indifferent	Undecided
Black	261	19.3%	49.6%	24.3%	6.8%
Chicano	56	27.4%	59.7%	3.2%	9.7%
Native American	41	23.3%	48.8%	23.3%	4.7%
Physically Handicapped	33	23.9%	28.3%	19.6%	28.3%
Poor White	135	40.4%	35.1%	13.9%	10.6%
Puerto Rican	18	15.4%	42.3%	11.5%	30.8%
Others	20	26.6%	70.0%	3.3%	-
Total Responses	564	25.6%	46.0%	18.2%	10.2%

Table 7-6

Respondents' Attitudes, by Minority Groups

Toward the Quality of College Education They Are Receiving

N = 752

Group	Number Interviewed	Number Responding	Excellent	Good	Average	Poor or Unsatisfactory
Black	347	289	12.1%	41.9%	26.0%	20.1%
Chicano	70	64	3.1%	40.6%	29.7%	26.6%
Native American	56	42	17.4%	10.9%	41.3%	30.4%
Physically Handicapped	51	41	12.2%	53.7%	24.4%	9.8%
Poor White	166	149	20.1%	54.4%	8.7%	16.8%
Puerto Rican	29	28	7.1%	50.0%	17.9%	25.0%
Others	33	28	3.3%	62.2%	14.4%	20.0%
Total Responses	752	645	12.9%	44.2%	22.6%	20.3%

Table 7-7

Respondents' Attitudes, by Minority Groups, Toward Their College Environment

Group	Number Interviewed	Number Responding	Favorable	Unfavorable	Indifferent
Black	347	311	38.3%	40.5%	21.2%
Chicano	70	64	45.3%	42.2%	12.5%
Native American	56	49	46.9%	42.9%	10.2%
Physically Handicapped	51	45	64.4%	22.2%	13.3%
Poor White	166	154	66.2%	25.3%	8.4%
Puerto Rican	29	27	44.4%	25.9%	29.6%
Others	33	29	48.2%	13.9%	37.8%
Total Responses	752	679	48.2%	34.5%	17.4%

Table 7-8

Reported Factors That Contributed to Students' Attending College*

GROUP	Parents Influence	Friends	To Obtain Social Recognition	To Obtain Better Skills	Relatives Influence	Other Individual's Influence	Participation in Special Precollege Program	To Raise Level of Education	Own Decision
Black (N=347)	70.4%	25.6%	20.7%	49.0%	19.3%	32.0%	20.5%	41.2%	88.8%
Chicano (N=70)	47.1%	25.7%	-	5.7%	15.7%	18.6%	15.7%	-	31.4%
Native American (N=56)	35.7%	17.9%	26.8%	44.6%	14.3%	21.4%	12.5%	28.6%	37.5%
Physically Handicapped (N=51)	56.9%	17.6%	13.7%	86.3%	19.6%	31.4%	15.7%	51.0%	47.1%
Poor White (N=166)	45.8%	15.7%	21.1%	59.6%	19.3%	24.7%	6.6%	33.1%	38.6%
Puerto Rican (N=29)	41.4%	37.9%	3.4%	-	10.3%	6.9%	-	-	48.3%
Others (N=33)	69.7%	24.2%	24.2%	9.1%	12.1%	27.3%	9.1%	24.2%	60.6%
TOTAL (N=752)	58.0%	22.7%	18.4%	45.9%	18.0%	27.1%	14.8%	33.0%	62.9%

*The percentages add up to more than 100 for each group, as most students reported several factors that were applicable in their situations.

Table 7-9

Numbers and Proportions of Students

Reporting Experiences in Pre-college Programs

N = 752

Program	Total Percent	Frequency
Talent Search	1.6%	12
Upward Bound	8.9%	67
Transitional Year	1.1%	8
Educational Assistance	2.0%	14
Summer Enrichment	1.2%	9
Educational Incentive	3.5%	26
Summer Orientation	4.0%	29
None	76.9%	578

least likely to view special precollege programs as a factor in the decision to attend college. Poor white students may have been more susceptible to other incentives than are the other minority groups. Blacks, on the other hand, seem more likely than do other groups to explain their college-going as a simple matter of "I decided I wanted to go." Indeed, a number of interviewees expressed their reasons in precisely this term.

Table 7-9 presents the numbers of interviewees who reported participation in one or another precollege program. The precollege program most frequently cited was Upward Bound. The fact that Talent Search placed some 29,000 students in college in 1971-72, against about 6,000 that year for Upward Bound,* suggests that many students in precollege programs were unable to classify these programs properly. The major significance of this information is that more than 3/4 of the sample report no precollege special program support of any sort.

Of similar interest are the data presented in Table 7-10 showing proportions of students in the interview sample who reported their participation in some sort of supporting service in college. Some students may, of course, have used services they did not report (although the interview guide required specific probing), and, of course, interviewers may have recorded the information imperfectly. Some students reporting participation in counseling or tutoring may well have received this assistance through Special Services though they may not have known it by that name; the same may be true for remedial courses. What is noteworthy is that almost 2/3 of the sample reported participation in some sort of supporting service--whether Special Services or not. The most frequently reported support program for most groups was work-study. It is also noted, however, that in one case, the Puerto Rican group, the proportion was reversed; 2/3 of the students in this group reported no category of support program.

Table 7-11 shows, for the 672 students who reported grades in high school and grades in college thus far, the proportions at the various levels of achievement. Almost 60% reported high school averages of B or better while less than 2% reported averages of D or F, suggesting that the "disadvantage" most of the students suffered did not include poor performance in high school. Grades reported in college were, as would be expected, somewhat lower, with a little over 40% in the B or better range. Compared to high school, a larger proportion of students fell within the C or lower range in college than in high school (e.g., in the C range, 15.6% compared to 8.6%). About 5% indicated D or lower average in college, a sign of serious academic difficulty. The relationship (calculated as a contingency coefficient from a matrix of high school vs. college grades) between the high school and college performances is .43. On the whole, the disadvantaged students interviewed appear to be performing satisfactorily in terms of grades in college. Their grade picture certainly does not appear to be lower than what might be expected for students in general.

Also of interest is the level of educational aspiration of the students interviewed. Their report is given in Table 7-12, which shows that less

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*Data from OPBE, 1973.

Table 7-10

Proportions of Students in Each Group Who Reported Participating in Various College Support Programs

Group	Counseling	Work Study	Special Services	Tutorial	Remedial Courses for Non-Credit	Remedial Courses for Credit	None
Black	8.1%	30.3%	12.4%	15.3%	7.2%	2.9%	34.9%
Chicano	2.9%	45.7%	18.6%	15.7%	-	-	30.0%
Native American	5.4%	26.8%	28.6%	1.8%	12.5%	-	44.6%
Physically Handicapped	9.8%	9.8%	29.4%	7.8%	7.8%	-	45.1%
Poor White	1.2%	37.3%	12.0%	4.2%	1.2%	1.2%	46.1%
Puerto Rican	10.3%	17.2%	3.4%	6.9%	-	3.4%	72.4%
Others	18.2%	3.0%	12.1%	42.4%	-	3.0%	39.4%
Total Participants*	6.5%	29.9%	14.0%	12.2%	5.1%	1.9%	39.9%

*About 10% of students reported participation in more than category.

Table 7-11

Proportions of Students Who Reported Various Grade Averages in High School and College (N=672)

Grade	High School	College
A+, A, A-	13.7%	6.1%
B+	15.0%	7.7%
B	32.9%	28.7%
B-	6.8%	7.1%
C+	8.6%	15.6%
C	19.2%	25.1%
C-	1.9%	4.0%
D+, D, D-	1.8%	5.2%
F	-	0.3%
	100.0%	100.0%

Table 7-12

Amount of Education Desired by Respondents

N = 752

Degree	Number Responding	Percent
Two-Year Associate Degree	35	4.6%
Bachelor's Degree	157	20.9%
Master's Degree	208	27.7%
Doctorate Degree	81	10.8%
Advanced Professional Degree	65	8.6%
Undecided	75	10.0%
Indefinite or Vague	36	4.8%
No Answer		12.6%

Table 7-13

Estimate of Students' Family Income

N = 752

Income	Number of Responses	Percent
Less then $2,000	85	11.3%
$2,000 - 2,999	85	11.3%
$3,000 - 4,499	124	16.5%
$4,500 - 5,999	117	15.6%
$6,000 - 7,499	102	13.6%
$7,500 - 9,999	80	10.6%
$10,000 - 14,999	67	8.9%
$15,000 - 24,999	31	4.1%
$25,000 or more	17	2.3%
No Answer	44	5.9%

than 5% plan only two years of college, while almost half state that they would like to take work beyond the baccalaureate degree.

Finally, Table 7-13 shows the range of family income as reported by respondents in the sample. A little more than 1/5 report family incomes of less than $3,000 per year, and a little more than half report incomes below $6,000. Almost 1/5, however, report family income of $10,000 or more. Some of these, to be sure, are those disadvantaged by physical handicap rather than poverty (7% of the interviewees were classified as physically handicapped). But in general, it must be assumed that either students overestimated their family income, or the identification procedures for placing students in the sampling pools were faulty.

C. A Profile of the Black Students

Three essential findings on the black students, the largest single subgroup (N = 347) in the interview sample, stand out. First, they are keenly aware of shortcomings in their background or high school education that cause difficulty at the college level. Second, they are quite eager to involve themselves in special programs or any other activities that will help eliminate or overcome their perceived shortcomings. Third, they feel that racism and prejudice, overt or unspoken, overshadows much of their educational experiences.

The High School Experience

Over half of the black students reported attending an urban high school, about a quarter a small town high school, and the rest a rural high school. In the urban high schools, about half of the students said the student body was desegregated. This varied from vast majority white to a slight majority black. The other urban half had attended all black high schools (in the North and South, but not in the West); the majority of the faculty in these schools was white. In a few Southern schools, about half of the faculty was black and half was white.

The disproportionate number of white teachers, counselors, and administrators (in comparison to black) was of concern to many black students. This, they said, had hampered their school performance and it had led to many peers dropping out. They mentioned such things as, "No one cares about the average (black) student"; "Black students are not given any responsibilities in the classroom, for example, they are not selected for committees or councils"; "Only a few highly selected blacks receive any kind of encouragement, guidance or recognition, and these same few students become tokens for all school activities."

Generally, it can be said that black students who attended desegregated high schools gave mostly negative responses. Generally, they felt detached and that they did not belong. Further, a number had the following specific complaints:

(1) Poor preparation in mathematics and English, particularly writing skills.

(2) "Color" prejudice from teachers, classmates, administrators, and counselors.

(3) Poor guidance services (or none) available to black students.

(4) No encouragement to participate in college prep programs. Therefore, a very small number of blacks can consider entering college. The majority of blacks are counseled or channeled into trade schools or community colleges.

Improper attention to poor writing skills was given as the most common reason for inadequate preparation for college by most black students, regardless of the type of high school attended or the type of college they were attending. (The few students who attended Northern private high schools did not cite this reason.) Circumstances and conditions that result from overcrowding were also mentioned frequently.

A few students noted that in spite of problems, they had received an adequate high school education and felt well prepared for college. These students emphasized such factors as good facilities, carefully planned college prep programs, and a few well-qualified and dedicated teachers.

Students who attended small town and rural high schools either felt that their high school preparation was "quite adequate" or that they were totally unprepared for college. Those who felt adequately prepared gave such reasons as good individual guidance from both teachers and counselors, good academic courses, good facilities, and generally good student-teacher relationships. As might be expected, poor facilities and lack of equipment were given as common reasons for inadequate college preparation. In addition, prejudice and lack of interest on the part of most white school personnel were also frequently mentioned as reasons for judging their high school education inadequate.

Black students in the West for the most part attended urban, desegregated (but majority white) schools. Most of them felt strongly that they were totally unprepared for college. Although their reasons were practically identical to the four enumerated above for other students who attended urban high schools, the Western students stressed more often that blacks were channeled into noncollege preparatory programs, and that they often had "unpleasant" encounters with prejudiced school personnel.

Almost all the black students suggested that more black teachers, administrators, and counselors be employed by the secondary schools. They also recommended that the curriculum be reorganized and courses on the works and experiences of minorities be added.

Precollege Programs

The majority of black students did not report participating in any precollege support programs. They indicated that information about such programs was not generally publicized. Some of them knew black students who participated in such programs, but they considered these students exceptional. However, three main types of precollege programs were fairly well known to the students:

(1) Upward Bound: A program for students recruited early in high school, who are given enrichment courses over a period of two or three summers at a nearby college campus with tutoring and general precollege counseling during the regular school year.

(2) Educational Incentive Program: A high school or community-operated program for students who have deficiencies, particularly in Math and English, generally special classes and tutoring after school or on weekends.

(3) Summer Orientation and Enrichment Programs: A college sponsored prematriculation program, where the institution either provided special preparation work in the summer, or where applicants were required to attend a summer program as a condition of regular admission.

Those few students who participated in precollege programs had favorable attitudes about their experiences. Their opinions about other programs were similar to those that follow concerning Upward Bound. They felt that Upward Bound provided black students with an opportunity to become personally acquainted with a college, to get a preview of the academic requirements, and to eradicate some of their educational deficiencies. They commended the program's tutoring and counseling aspects and reported counseling to be a major influence on their choice of a particular college. They also commented favorably on the program's dissemination of information about scholarships and financial aid and its cultural and social benefits.

However, the students felt that the programs did not go far enough into the college curriculum, did not deal sufficiently with study habits, and were "too short." Summer programs, nevertheless, were considered to be extremely useful.

Many black students, including those who had participated in the precollege programs, pointed out that students selected by the high schools for these programs would probably go to college anyway. They criticized the programs for not reaching those who have potential and are disregarded in high school, but desperately need guidance and convincing reasons to go to college. They felt that programs such as Upward Bound and Talent Search should include more average students and should not use low income as the primary criterion for acceptance. Furthermore, they felt that any student should be able to take any course he desires in high school; that good guidance or assistance should be readily available to all high school students who feel they need it; and, that these options, rather than selection for or assignment to programs, would be preferable to the more structured programs.

The College Experience

The black students interviewed generally held one of three reactions to the college experience. Many said that it had broadened their horizons and forced them to take a realistic view of life and society. A male student attending a large Midwestern university said, "My life in college thus far has been rewarding. I have matured from the naive kid to a mature thinking adult who has plotted a future direction, and college is helping me realize my goal." Second, a minority of students viewed college as disillusioning. One student said, "College has made me wonder if I'm pursuing the right career, i.e., higher education." Another said, "I don't think I'm getting what is needed to prepare me for what I want to do in life." Finally, an even smaller number of students viewed college as a kind of rebirth and extremely rewarding. One female spoke of it as "... a renaissance ... you must picture a little child at the brink of discovery and then a woman having made that discovery."

For many students, the primary purpose of attending college was to prepare for a job or profession. These students were typically unconcerned with many of the social and cultural aspects of the college climate. Some other students were adamant that college was impersonal and alien; their discomfort affected their total college experience.

Attitude toward Administration, Faculty, and Students

On the whole, black students had a negative attitude toward college and university administrators. They had somewhat more positive opinions about faculty and varied considerably in their attitudes toward the general student body.

Whatever the type of institution attended, the administration was considered far removed from the normal daily life of black or any other students, and were typically characterized as nonresponsive and unconcerned about students' needs and problems. However, students in predominantly white institutions frequently felt that the administration was prejudiced toward black and other minority students. They said their only interest in minorities stemmed from federal monies the institution could not otherwise receive. While administrators in black colleges were not seen as prejudiced toward blacks, students in these colleges noted that administrators were more concerned with money than with people.

While some students considered the teachers competent and helpful, an almost equal number considered them incompetent. Students were mostly critical of professors for not spending more time with students and for "too traditional" teaching methods. "Far too many professors come to class and merely lecture; they have no imagination," one student said.

On the other hand, almost every student in a traditionally or predominantly white college or university reported experiencing some form of racism in dealing from the faculty--either overt, or "unconscious." "When a professor tries to control his racism, he tends to be paternalistic and that's almost as demoralizing," said one student. These students criticized white professors who seemed disinterested and lacked the ability to teach black students who may have atypical deficiencies. They complained that there was little or no time for individual or small group consultation with most professors and that students rarely have an opportunity to meet with faculty informally outside the classroom. Other students spoke of a small minority of professors who are concerned about every student. According to these students, these faculty members see racism all about them, but cannot attack it because they fear losing their jobs.

Two-year college students frequently stated that a comparatively large percentage of their instructors were low caliber and that this had caused a remarkably high drop-out rate, either from resultant student apathy or failure. Nevertheless, two-year college teachers were praised for their willingness to help and their availability to students more frequently than were faculty in four-year white institutions.

Students on black campuses also frequently praised their faculty for their willingness to help and for their genuine interest in the student's well-being. In this situation, the main problem was considered to be a dire need for more young, first-rate black professors, more courses, and more majors. It was noted that in the past the college curricula were sufficient for turning out blacks for the limited opportunities open to them in society. In recent times, however, more opportunities have begun to open up and the respondents felt that colleges are extremely limited in their offerings toward preparing students in these fields. The attitudes of black students toward the student population varied from a feeling of congeniality to one of little or no contact, again depending on the type of institution they were attending. At black colleges there was a general expression of togetherness. "If there is a group that is better prepared, they are usually willing to help the rest of us after class," one student said. Some students were concerned about social cliques on the black campuses.

Those in two-year colleges who had a favorable attitude said they could get along with almost any students; they also noted that there were few opportunities for interactions outside the classroom. Those in two-year colleges who had an unfavorable attitude expressed the same kinds of views as black students in predominantly white senior colleges; e.g., the majority students are prejudiced or paternalistic, or are interested only in "getting a degree" or in having a good time. Several students said that social class and economics make little or no differences in their casual acquaintances with nonminority students. On the whole, though, there seemed to be very little mixing of black students and white students; most blacks established their friendships with other minority students.

The Quality of Education

The majority of students considered the academic program and quality of education good; a few thought it excellent. In spite of some of the problems mentioned earlier, more than half of the blacks felt that they were as well prepared for college as other students. Another 25% felt they had "the necessary college potential," and the assistance they received had helped them enormously in their college experiences. Some of these students pointed out that personal problems such as finances had been their only serious obstacle thus far.

Still another small number felt that they needed tutors and special classes in order to have any success in college. They were somewhat hostile and critical because they had been unable to get the needed assistance. All of the critical students had participated in some type of precollege program, and they had looked forward to counseling and other similar assistance once they entered college. However, they seem to have enrolled in colleges where there were few, if any, ongoing special services or programs for "disadvantaged" students.

Of 347 black students interviewed, only 12 admitted that they were having serious academic difficulties. About equal numbers said the course work was simply too hard and they were not prepared or that they had not applied themselves due to other problems such as work and finances.

In looking at college grades in relation to attitudes about the institution, about 85 percent of the black students on white campuses remarked that it was not academic content per se that adversely affected their grades and performance. The problems cited are a combination of one or more of the following factors:

(a) The obvious absence of a significant number of black professors, counselors and administrators with whom they could relate or discuss personal and academic problems.

(b) The absence of advisors or counselors with time and interest to advise students on matters other than course selection and scheduling. (Advisors are typically seen as perfunctory, and concerned only with requirements and procedures.)

(c) The irrelevancy and dishonesty of the curriculum in dealing with problems and issues in the real world.

(d) The apparent "systematic discouragement" blacks get when they wish to pursue a career in science or other "hard core" areas. The students seemed to view this discouragement as a function of two primary factors: inadequacies or deficiencies in their high school education, and insufficient interest and ability of most white professors to take the time to help them overcome these deficiencies.

(e) Prevailing racism in our society, both overt and subtle, that blacks must constantly confront. (As evidence of this racism, they cited absence of planned social and cultural activities for blacks, prejudicial assignment of work study and financial aid, pervasive attitudes of "white superiority" among whites, and "complete ignorance and lack of recognition of blackness.")

When asked about the comparison of high school grades with college grades, most of the students, in black as well as white institutions, indicated that their high school grades were better. Problems of adjustment to college life, inadequate application of time and self to studies, the racist environment, and too much time spent working were mentioned most frequently as reasons for this difference. A few students in community colleges and in black colleges reported that their grades were about the same or slightly better than in high school. One such student said the pressures are more manageable in college and that college students tend to apply themselves to their studies more than do high school students.

Social Life

The majority of black students felt there was much room for improvement regarding on-campus social life. Although most two-year college students work to support themselves and have little leisure time, they criticized the fact that the colleges offer them virtually nothing in the realm of social activities. Students in black colleges were pleased with their opportunities for social interaction. Yet, even they complained that there is not enough money for cultural and social activities.

The strongest criticism came from students in white colleges and universities. They said that although all students were required to pay activity fees, expenditure of these funds was planned by whites, and usually only activities expressly for the white population were supported. If white colleges are going to accept minority students, they feel they should put forth a concerted effort to provide at least some activities that will appeal to minorities.

Too many activities required that the students pay or have money in order to participate. Some students argued that this practice is not only discriminatory, but also that it is steadily increasing on the college campus. Many students asserted that dissatisfaction with social life had seriously influenced their attitude about the entire college and had had a negative effect on their grades and motivation.

Financial Aid

Throughout the interviews, students talked about the importance of financial aid and the part it played in their opportunity to get a college education or to go to college in the first place. The amount of financial aid they received, the opportunities for work-study, and scholarships seemed to have influenced students in choosing a particular college more than any other factor. In addition to emphases placed on financial aid in this way, inadequacy of personal finances was listed by a large number of black students as causing a great deal of worry. Although availability of aid had been the prime factor in deciding to attend college, once there many students found that they did not have enough funds to stay in school or to participate fully. In a number of instances, unanticipated and hidden costs confronted them even on registration day. Besides, some were told late in the first year that no more aid would be available to them after the initial year. A small number of students were disappointed that they had not been able to attend their first-choice colleges, where they had been admitted and given some aid--but where, with absolutely no other source of money, overall expenses would have been too great.

Students also frequently questioned the fairness of financial aid administrators and some of the guidelines they use in administering aid. For example, several commented that blacks and other minority students seemed to be assigned financial aid packets with an unusually high proportion of high-interest loans; it seemed easier for nonminority students to get on the work-study program. Furthermore, the job assignments given nonminority students were considered to be more meaningful and related to their majors.

More work-study time was seen by many students as one way of resolving their financial pressures. Yet many felt that time spent working interfered with their studies.

Special Programs

Very few of those interviewed reported participating in either the federally funded Special Services Program or special programs in college of any sort. However, those that had participated in Special Services indicated that the tutoring was extremely valuable. While the vast majority of tutors were other students, in a few cases they were faculty members. It was pointed out that student tutor-counselors should be carefully screened, well-qualified to help other students, and not assigned such an important responsibility simply because they are on work-study. For the most part, however, student tutors were considered as helpful as faculty members. The hours set for tutoring, particularly late in the evenings, were often a problem.

Counseling was generally mentioned by students in Special Services as the most valuable component. Frequently the only avenue black students saw to a counselor was through these federally supported activities, although most colleges offered a professional counseling service.

A few other students who reported taking remedial courses or a reduced course load were extremely critical of these situations because of the pressures imposed upon them later to "catch up." They also considered this unfair since they paid full fees and tuition, and in the end their education would take longer and cost more than for other students. Furthermore, they were often stigmatized for having to take such courses.

Surprisingly, almost none of the black students reported that they would quit school or transfer next year. They planned to complete college, and many spoke of the importance of an education. Most two-year students planned to transfer to a four-year institution, and a large number of students planned to go on to graduate or professional school.

It would probably be fair to state in summary that the most notable differences in the reactions of black students in college seem to be largely a function of the kind of institution the students were attending. Satisfactions lessened and criticisms heightened as we examined interviews beginning with students in black colleges, then those in two-year colleges, and finally those in predominantly white four-year institutions. Most students in our sample who were attending selective institutions were found to be extremely unhappy. Their primary complaints were too much academic pressure with few, if any, social or nonacademic outlets; the isolated location of most of the colleges; and, the disturbing "facade of liberalism" maintained by the school, its student body, and above all, its faculty. These problems, combined with others such as obtaining adequate financial resources, appear to have made quite an impression on these black students. The observation that selective institutions had admitted very few financially poor students suggested to some black students that these colleges, in admitting blacks, might be more interested in capturing federal funds than in improving the student's financial situation.

D. A Profile of the Chicano Students

Although the Chicanos interviewed shared the problems of poverty origin found in the other minorities, they are unique in several respects. First, language barriers in some instances inhibit their preparation for or performance in college. Second, they tend to be concentrated in the Southwest (where the nation's major minority, the blacks, are not so numerous) and in areas where native Americans are also concentrated. Third, like the native Americans, their culture is quite distinctive from that of the blacks, and they feel the institutions they attend lag in recognizing this culture. Fourth, not having had distinctive institutions of higher education, they, like the Indians, feel they suffer from a relative paucity of individuals who qualify under traditional standards for faculty and staff positions in colleges and universities.

The High School Experience

The high school environment of the Chicano students interviewed was typically integrated. They attended school with both blacks and whites and occasionally with native Americans and Asians. In almost half of the cases, the white students at their schools were in the minority. Student populations varied from majority black (especially in urban areas) to 30% or 40% black compared with 40% Chicano and 20% white. Some of the students interviewed felt that the racial mixture was a positive feature, providing opportunities for more frequent interactions between races. More students, however, reported ethnic-racial tensions and disturbances, particularly at schools with a high black population. Racial tensions were also reported at schools where Chicanos did not represent a sizable percentage of the school population, a condition they associated with the almost systematic exclusion of Chicanos from school activities.

General comments about high school were mostly negative. Students complained of low academic standards and of an orientation that was not geared toward further education. Students were often channeled away from college preparatory programs, if indeed strong college preparatory courses existed. Some students reported that counselors were concerned only with those students, usually white, with the greatest chance of "success." Chicano students who were able to participate in college prep courses usually gave positive comments about their high school programs and their education.

Many of the other uninspiring high school conditions were related to poor equipment and gloomy surroundings. Students often complained that the environment lacked discipline, a condition they felt quite important if they were to achieve. Another major weakness cited by the Chicano students was the insensitivity of the faculty and administration to the needs and problems of minorities. Further weaknesses, mentioned frequently, were outdated teaching methods and inadequate or poor facilities (particularly in the sciences).

The Chicano students from integrated schools saw the racial mix as a positive feature. Students also found ethnic unity groups or Chicano-oriented activities, where they existed, to be a most favorable feature of their schools. There was also frequent mention of a single course particularly well-taught, or of one or two teachers, usually Chicanos, who were knowledgeable, effective, and sensitive.

Chicano students are quite vocal about how their schools could be improved. They want better teachers who know their subject matter, who are enthusiastic and can inspire enthusiasm, who are willing and able to use innovative techniques, who will prod them and urge them in creative ways, and who care for and understand students, particularly Chicano students. They would like more of their teachers and counselors to be Chicano. In fact, they recommend that more Chicanos be placed in all positions in the schools, "except gardening."

These students would like more structure and rigor in high school. Some mentioned the desire for more challenging work. They appeared particularly sensitive to college practices, like requiring research papers, that had been missing in their secondary school work. Accurate information about colleges should, they feel, be made more accessible to students through counselors and college recruiters, with particular attention to availability, admission procedures, and financial aid.

Most of the students interviewed had high school grade averages within the C range. Generally, only those who had A averages felt their high school grades fairly reflected their ability. Reasons given as to why high school grades were not a realistic reflection of ability included lack of challenge, failure to apply self to work, prejudice on the part of teachers, and the demands of a part-time job.

The decision to attend college was fairly simple and made early for about 1/3 of the students. Several had been encouraged as long as they could remember by their parents to further themselves or they had been influenced by the situation of their parents; e.g., one student had seen his parents working in the fields and "was determined to do better than a field hand." For these students, there had been no question as to going to college.

For most of the other 2/3, however, the decision to attend college came sometime during the senior year in high school. A few made their decision after high school graduation, for example, when the G.I. Bill became available to them or after they had taken a few night school courses. Most felt their parents had been influential in their decision, and those who had participated in Upward Bound programs rated this experience helpful.

Precollege Programs

Of the 65 Chicanos (five interview reports represent students at a highly unique institution, and are treated separately in a later section), 12 students had participated in a precollege program. Only five respondents from various parts of the country had participated in Upward Bound, the most frequently mentioned program. Seven students, of whom four were in Upward Bound, cited the precollege program as having had a positive effect on their planning to attend college. In most of these cases, the programs had put the students in contact with a college campus or staff. Of the 54 students not in precollege programs, 11 indicated that such programs existed at their high schools but they did not participate in them. They gave no reasons for not participating in the programs, except in two cases involving Upward Bound; in these instances, the schools were predominantly black and the programs were almost exclusively for blacks.

The only constant theme regarding weaknesses in precollege programs was related to structure. Two students, for example, felt their programs needed more integration of separate program components; five others favored expanding the programs to include more students, together, of course, with additional funding, more classes, and more tutors. Students seem to favor programs that are informal and yet reasonably structured. They also found contact with college life helpful in acquiring "a taste of college" or some knowledge of what to expect.

The College Experience

For most of the Chicano students, college life seems to be less than exciting, certainly less than sufficient. The predominating attitude was that the quality of education and college life in general was only adequate. Those who found their educational experience "great" were countered by those who felt it was "terrible" or a "waste of time." A fair number considered their fellow students friendly, but more characterized them as apathetic, "sociologically naive," or plainly prejudiced. Faculty were frequently considered learned and proficient, and in some cases, helpful and sensitive, but often abilities were marred by personal characteristics ("conservative," "catering to the rich"). The weakest link in the student-faculty-administration collegiate structure seemed to be the administration.

Students complained that administrators were hard to see, that they "don't make themselves available." There were very few administrators viewed positively by the students.

Characterizations of faculty and administrators by individual students varied. A negative remark about the faculty was not necessarily accompanied by a negative remark about the administration, suggesting neither whitewash nor undue cynicism. Comments by students within a single school indicated that, occasionally, they had very different perceptions. For example, the administration described by one student as "very cooperative" was described by another as "caring little."

Social Life

Enthusiastic comments about social life on campuses were rare. Some students stated that they were unfamiliar with campus social life, which may, in itself, be a telling comment. Approximately 1/3 said it was more or less the same for all students, regardless of ethnic group. This often meant that there was not much social life for anyone. Where differences in opportunities were felt to exist, lack of money was considered the biggest obstacle for the Chicanos. Some respondents noted that wealth determines not only what one can do, but also with whom one can do it. In some schools, the more affluent majority students controlled the social functions, often through a rigid fraternity/sorority system that effectively excluded Chicanos. Students who attended college in the Southwest were the most outspoken critics concerning this matter. Where social outlets were not expensive, however, Chicanos still felt restricted by the orientation of available activities for middle-class whites.

Contrary to reported high school experience, ethnic unity groups were mentioned less frequently; slightly more than half of the Chicanos were members. Although these appeared to be the center of social activity, most Chicano students reported having no reservations about associating freely with people who are culturally, racially, or economically different from themselves. A small number said they prefer to associate primarily, if not exclusively, with Chicanos. However, when actual association patterns reported were examined, it was found that most Chicano students were indeed associating primarily with other Chicanos.

One could speculate that there is a strong relationship between insufficient social life for students, an impassive and somewhat alien attitude toward college in general, and grades. The majority of students interviewed reported receiving lower grades in college than they received in high school. (The average college grade was approximately 2.4 on a 4.0 scale.) The reason given most often was that college is simply harder than high school and that the transition, both academic and social, had been difficult. Most felt that the college grades they had received were not an accurate representation of their ability. Some placed the blame on the fact that they had to work and did not have the time or the energy to put forth their best efforts. Others blamed inadequate preparation. Nevertheless, the overwhelming majority said they could do better but were not applying themselves (and would, if pushed to achieve). Approximately 1/2 of the students indicated that their grades had improved since their first semester at college. The other half said they had remained the same; rarely did they get worse. Improved performance was usually credited to improved adjustment to college life.

Chicano students' comments about the importance of a college education often included two or more of the following factors: career success, acquisition of particular skills, personal growth, and better opportunities to help Chicano people.

Nearly half of the respondents indicated directly that a college education is important in order to obtain a good job. They see a good job, apparently more so than the college degree itself, as opening avenues to self-determination and financial security, and as "success in the system." About 1/3 of the Chicano students felt that college is important as a place to gain knowledge and meet people (for the exposure to ideas it provides) and as a way to personal growth. Another reason, mentioned less frequently, was that it is important in order to acquire a specific skill or an academic degree, for example "You need college to become a teacher." While only a small number of students explicitly stated that they felt college was important as a means to helping their fellow Chicanos, it is conceivable that many more believe that it was tacitly understood that their education—providing knowledge, skills, growth, and position—would help other Chicanos directly or indirectly, for most aspired to careers in one or another social service area.

Responses as to why a student chose to attend a particular college centered mostly around financial reasons, often coupled with the location of the school. Almost half of the Chicano students indicated that they chose their particular college because it was close to home, permitting them to live at home, retain their jobs, or otherwise be financially feasible. On the whole, Chicanos did not seem to choose a particular college on the basis of its academic program or its social or cultural environment. In a few cases, students reported that they were influenced to go to a specific college by a friend, relative, counselor, or recruiter. One student said that the staff of his Upward Bound program recommended the college he is attending.

Special Programs

Nearly all of the students whose interviews were reviewed in general (50 of 66) were participating in at least one special college program. Most were involved in a financial aid program, and the program mentioned most often was work-study. For the most part the other programs were concerned with counseling and tutoring.

Work-study programs were criticized for not offering enough money and for limitations on the number of hours one could work. Students also made negative remarks about being paid on a once-a-month basis. Some said they would like to see more and better jobs available to them, and many strongly recommended work options in fields related to their majors. Such an opportunity would minimize the problem of "boring jobs" and make the value of the program more than simply a financial one. At the same time, they did not discount the value of money received for work; this for most made continuing education possible.

Students seemed satisfied with their counseling programs, although they were nonspecific in their comments. On the other hand, comments about tutorial programs were rather varied. Overall, students' comments were positive when tutors were available in a wide range of fields, but they were extremely critical of tutors who were unprepared. They noted that adequate time must be allotted per tutorial session, that the session must not be scheduled simply at the convenience of the tutor, and that some care should be taken to match students with tutors who could help.

A small percentage of students interviewed indicated participation in the Special Services Programs. Few details or comments were given about these programs except that they were felt to be successful in helping students adjust to college life. At one institution the program was praised for having "brought more minorities" to the campus and having "united minorities." At another college, where the thrust of the program was tutorial, students reported improvements in their school work and grades; they also commended the program for the feeling of security it gave them to know that academic help was available. In five distinct instances a special program such as Equal Opportunity Program (EOP) or Special Services was named as having made college decidedly more attractive.

One Western school was unique in many ways. It is fairly new, was created expressly for Indians and Chicanos, is fairly small, and has a distinctive study body. The comments of the students interviewed were markedly different, and so are treated separately. Students said they chose this particular school to learn about their culture, to gain a sense of identity, and because they could "feel at home here." None of those interviewed had been involved in precollege programs. On the whole, they were enthusiastic about their college life. They felt no racial barriers between the students, but said "they should work together more sometimes." The faculty members were considered competent and receptive to the needs of the students. "They know our problems and are very helpful." However, the administration was suspected to be too influenced by white values. All interviewees (except one who is also a counselor and teacher at the institution) felt that the quality of education was good.

Students, they said, have an active voice in governing the school, at least with regard to the special programs. Four of the five interviewed had participated in a special program. They were also involved in recruiting, in instructional internships, and in programs for aiding migrant workers. Remarks about the programs were generally positive.

The school's social life was looked upon favorably. Perhaps this is due in part to the absence of racial barriers and the rather cohesive student population. One student referred to it as "one big family." Interestingly, none of the students indicated membership in an ethnic unity group. The greatest concerns of these students were the future and success of this college, with three of the five students interviewed stating that the school needs more funds and full accreditation.

In summary and in elaboration, the Chicano students as a group felt that they had been channeled away from the most appropriate secondary school curriculum with regard to college preparation. Unlike others, they emphasize that contact with other subcultures in high school had been warmly received, except for some tensions involved in situations where there is a black student majority. But like other students in the survey, they felt that their teachers had serious inadequacies, not the least of which was failure to know much about or understand the Chicano culture.

Decision to attend college generally comes late in life. In choosing, Chicanos generally stay near home and jobs, usually for financial reasons. In college, however, they seldom find adequate social outlets that they can enter into. They seem to feel a strong sense of cultural heritage, and do not find outlets for this in the social activities of the college. Their goals are pragmatic and have a general focus on humanitarian or social service roles.

The experience at one institution designated as "unique" in this study strongly suggests that free of pressures from majority society (and cultures), Chicano students were significantly more pleased with their educational experiences. They indicated a strong sense of appreciation for determining and controlling their own destiny, a common cry from most minority groups. The most significant implication of this point is that unlike whites and blacks in this country, few, if any, other minority groups operate schools where the majority population is their own.

E. A Profile of the Native American Students

A theme appearing throughout the interviews of native American students is that the social well-being of the native Americans is directly related to the number of their own people surrounding them. Even though this is not a new insight, it is a fact that is well known only to those who have any experience working with native Americans. This point is explained here because it was a matter of grave concern to the students. Furthermore, it seems to be overlooked or ignored in the funding of native American programs.

The report that follows presents results of interviews from two points of view: one is regional and the second is as an ethnic, native American. It must be remembered that very few native Americans attend college; therefore, the results, in the college section in particular, will be presented as a series of case studies rather than generalizations derived from a large sample of student responses.

The High School Experience

Less than twenty percent of the students interviewed participated in any kind of precollege program. Of that number, all but one participated in Upward Bound. Those who participated in Upward Bound were encouraged by the preview of college they received and perhaps more by the attention they were given. However, one East Coast respondent did not appreciate the fact that they were "paid" for attending the first year and had to earn their stipend the second year they were in the program. One interviewee felt the counselors were prejudiced and suggested that there should be an equal number of students from each of the three ethnic groups, Indian, black and white. Seventy percent of those students participating in Upward Bound gave it credit for their going to college and mentioned counseling as a particular strong point. Upward Bound was also given credit for preparing students more fully for college. Of all interviewees, there were only four who indicated that a precollege program was available but had not taken advantage of it.

Students coming from primarily native American public schools were generally lavish in their praise of their secondary schools. Criticisms, if any, were mostly directed toward lack of proper college preparatory classes. The picture created for the Atlantic Coast secondary schools was one of an easygoing social life that created few anxieties. This appears to have rather a positive effect on the attitudes toward teachers, many of whom were described as "friendly and helpful." Most students from this area mentioned teachers and counselors as well as parents and relatives as the major influence in their decision to attend college.

Students who attended BIA Mission and other exclusively Indian schools had mixed feelings. While there was general approval of the social setting, there was a great deal of criticism leveled at the strictness of rules. There was some criticism of the curriculum that is alleged not to be college preparatory. Teachers in some cases were called "prejudiced against native

Americans." This view of boarding schools is a perplexing one. While most students like the fact that they are together as native Americans, the restrictive nature of the environment, obviously, causes unnecessary anxieties and tensions among the student body. There appears to be a need for a new attitude to be developed in the administering of these schools; one that will allow the students, teachers, counselors, and administration to work together for better learning activities rather than in opposition to each other.

Students who attended public schools in which they were a decided minority appeared to have the greatest difficulty of all. Many of those interviewed had failed to graduate from high school; a few of these have now attained GED diplomas. One girl indicated that she was expelled from six different schools before quitting, and a boy reported being expelled from eight different schools before quitting. In the case of the latter, school size varied from a fairly large enrollment to a rather small enrollment, but in all cases, native Americans had constituted a very small minority in the student populations. In the cases cited, the schools were located in the Southwest and Far West.

In a Northern setting the remarks were not quite as harsh, even though racial ratios continued to be heavily in favor of non-Indians. One respondent said, "They had good counselors, good activities, a Human Relations Club, and concerned teachers." A revealing picture of one school and community is presented in the statement, "It was small, rural, substandard academically, with much localism in attitudes and prejudices, usually more on the economic than a racial basis. It had no counseling at all, or any type of encouragement."

In summary, and generally speaking, the attitude toward high school was a negative one except for students from primarily native American public schools. Upward Bound seemed helpful but was available to far too few; Talent Search was not mentioned. Indian students from public schools where they had been a minority revealed general unhappiness and were unimpressed by faculties. Those in schools where they had been a majority were much more positive. Students from boarding schools, while they approved of the school itself and the social life it offered, resented the regimentation that was forced upon them.

The College Experience: Case Reports

A small Junior College on the East Coast has done an excellent job of selling the school to the students. The attitudes of its students represented in the study indicate an almost unbelievably harmonious campus. Typical comments were: (Faculty) "They are nice and helpful"; (Racial) "There is no prejudice here"; (Social Life) "Everyone participates, no matter what class you are in, rich or poor." The percentage of native Americans enrolled at this institution (seven percent) was much higher than the usual less-than-one-percent, although it was still low. Work-study was the only federal program mentioned and it had one native American participant. However, several students reported that they took noncredit courses that helped them considerably. Even though this was a low tuition state-supported college, some students indicated financial problems.

In a Northern university bordering Canada, there was a different attitude. While no one spoke clearly of racial prejudice, there was strong evidence of economic discrimination. Isolated as the university is, it appears that "Greeks" on campus are elite. There appeared to be resentment toward this by the native Americans because of the economic requirements of belonging to a fraternity or sorority. Work-study was the only special program mentioned. The interviewees' impressions were that the faculty and some students were quite apathetic. Several students spoke of lack of communications between staff and students generally. One student's comment may help to summarize the prevailing attitude of most Indian students in this college: "While it is necessary to be here, OK; but boy, will I be glad to leave!" The most significant recurring theme in these interviews was the unanimous endorsement of and participation in the native American organizations that filled many voids and served the students in numerous other ways, including publication of a national newspaper.

A slightly different attitude was found in another school in the North Central part of the country. Many of the individuals interviewed participated in Special Services, and were appreciative of it. However, students reported that the program was "criminally" underfunded and consequently was a "let down" for participants. The Indian organization was a factor in social life and that appeared to be the main sustaining force. There was a lot more concern about an Indian-white conflict. Some students, however, either ignored the situation or did not believe it existed. Some accused white faculty and students of prejudice; others blamed the conflict on lack of communications and a white attitude of superiority. Older students with children found the community difficult to deal with. This was particularly noted by one individual whose husband was in a doctoral program. As mentioned before, the fact of Indian awareness through their organization was a strengthening factor, and many students indicated much faith in its ability to be what it seemed to be, a refuge from an alien society. Indian faculty were praised and non-Indian faculty members were given, for the most part, very little praise. Many of the students at this school were in special short term courses such as law enforcement and telecommunications.

A large institution in a major industrial city had a very strong native American program, apparently funded through Special Services. Several students mentioned the native American program as the primary reason for being in college. The social atmosphere, nevertheless, seemed to be overpowering in favor of middle-class whites. This situation led to a polarization in most instances and this appeared to have actually strengthened the effectiveness of the native American program. Recruiters for the university seemed to be active--one of the greatest concerns was getting more native Americans in school. Also, the students were provided a good forum for determining the course of this program; this factor probably contributed heavily to the strong retention rate noted at this school.

In a Northwestern university there was the usual cry for "more native American students." Students were also resentful of the attitude of the general public in the "College Town" where the institution was located. Several complaints arose over the fact that the Special Services director (not a native American) did not appear to have the interest of students other than those of his own ethnic background at heart. Work-study was a strong factor in the lives of those few who were participants.

A small Junior College in the South Central United States seemed to portray, on the one hand, social mobility for native Americans, and on the other hand, a subservient role for them in relation to that provided to the other students. The Indian students with aspirations for social mobility revealed hostile attitudes toward blacks which were noticeable in their comments. There was no Special Services nor work-study participation indicated. Most students appeared to have chosen the institution because of its small size and location near home. The biggest complaint was a social one of sorts: the isolation of the institution caused the problem of "nothing to do."

A new kind of institution on the West Coast was the source of several interviews that may have been more revealing if the institution had been older at the time of the study. The institution simply was not ready for the kinds of questions being asked of its students. Work-study, however, was a most important factor in the support of the students. The students were overwhelmingly in support of the concept of the school structure and found most disappointment in the area of prior expectations against the current reality. Most students were older (24 and above) and few had actually graduated from high school. There were mixed impressions about faculty and administration. Some indicated that they were doing the best they could under the circumstances; others noted that the faculty were not prepared for the task at hand. The most pressing problem at this institution is funding and this affects the stability of the students' lives as well, according to the interviews.

Several generalizations emerge from the interviews that should be mentioned by way of summarizing and augmenting what has been reported. Financial need is a major problem in all areas, and the resulting insecurity has a great hold on the student population. Grades are generally low to passing, failing in some cases, but extremely good in others. The social stability of the individual appears to have great effect on the grades. Another factor that appears to be directly related to grades is personal problems. (There were several with poor grades who were either in the process of divorce or who were recently divorced.) It was interesting to note the large number of older Indian students who are determined to graduate despite the pressures. Many young students, on the other hand, were hampered by the transition from a rural setting to a large institution and were having trouble coping. In all cases, students were grateful for special programs but with the specific reservations mentioned earlier. Finally, there was an overall concern for the survival of the culture, and thus, the native Americans in all institutions expressed the desire to "help their own" in various ways. This was the only factor that emerged everywhere, from East Coast to West Coast.

Emphasis on Students' Successes and Satisfactions

It is not surprising to find that the most influential factor in the students' decision to go to college was pressure from parents and relatives (other than the student's own decision centered around gaining skills). Upward Bound was a factor in several cases, and high school counselors were rated high as an important influence. Institutional counseling while in college was generally not regarded as significant unless it was associated with an Indian program. A large number of students were not pleased with their own performance, and a number of intangible factors and pressures seem to come into play here. One could not isolate from the interviews any single factor, except perhaps the usually small number of native Americans at both the student and faculty levels. A large number of students acknowledged the temptation of quitting school, but at the end of the interview they stated determination to finish. In most cases, students found the institution to be too traditional in its approaches to higher education, with little regard for individual and cultural differences. One reason for this probably relates to the low visibility of the native Americans on most campuses.

Special Programs

Students who were in Upward Bound found the programs stimulating for the most part. The faculties and counselors of this program seemed to be the focal point of their comments. In fact, where students had participated in Upward Bound, a teacher or counselor was the only person mentioned as a factor in their decision to go to college. Ethnic identification was another important criterion used by native Americans in judging Upward Bound as well as other programs. Students who participated in Special Services programs, exclusively Indian, were unanimously pleased while those who were in mixed programs appeared unsure and far less satisfied. Students who were not participants in special programs either had no knowledge of them or described them in nonevaluative terms. Those students who were in other kinds of special programs, such as tutorial or noncredit courses, generally were grateful for the added opportunity that was available to them. While there was limited participation in work-study (9 of 54), it was welcomed. It was sometimes the saving program for a college career, even though the jobs were often considered menial.

There seemed to be no question for the interviewees of the value of the programs mentioned. The problems have already been mentioned and the implications seem to indicate that the programs should be more widespread with more native American identity reflected both in staff and student bodies. The problem of needed funding seems to be forever present. In the area of financial aid, however, there is a wariness of accepting loans to attend college. One student mentioned he was $5,000 in debt, an obligation that appears to be totally unnecessary had he had proper financial counseling.

One of the most overwhelming institutional needs that grows out of the experience of the native Americans is the development of a viable forum for racial communications. The reactions of the students reveal a vast amount of alienation from the general college environment. Indian Studies programs were mentioned by many as a vital necessity for the progress of Indian education, to say nothing of the improvements they would make for the rest of the educational world. With two rather notable exceptions, the institutions represented appear to be viewed as something apart from the students they purportedly serve. Perhaps the colleges have become more concerned with the survival of the institution than that of the people, who after all, are the reason for their existence. It was mentioned that the atmosphere on one campus was "cold" and perhaps that is because the institution has long since died and the only thing remaining is a mausoleum in which students are expected to ferret out an education, to reconstruct the body from the dusty bones that clutter the halls.

F. A Profile of the Physically Disabled Students

The results of the 49 available interviews indicate that physically disabled students are distinctly different from the other groups of "disadvantaged" students. First, few handicapped persons attend college or even get a high school diploma, unless they come from middle- or upper-class backgrounds. Almost all of those interviewed were white and above the poverty criterion. Second, the physically disabled (blind, deaf and para- or quadraplegic) are characterized by a driving need, yet an anxiety about their ability to become fully integrated into their school society and eventually into society as fully participating and productive individuals. This need and this anxiety pervaded their evaluation of their educational experiences. Third, they lack the sense of group consciousness or group assertiveness that characterizes the minority student groups. Finally, the nature of their disadvantage, with its implications for supportive programs, would logically seem to be quite different from those affected by poverty or minority group status.

The High School Experience

The handicapped student tended to appraise his high school preparation according to whether it had any special programs geared to his physical disability per se and to how well it prepared him academically for college.

Most of the students interviewed came from small high schools with not enough money, facilities, or disabled cohorts for the provision or support of special programs. Specially-trained teachers were unheard of. In large schools, the lack of special attention to the handicapped student's needs was attributed to not enough faculty for the number of students. The students from large high schools, however, seemed in general to have a more favorable opinion of their precollege preparation than did those attending smaller schools. The fact that those in larger schools had the advantage of more course offerings, more materials, and more informed guidance counselors apparently accounts for the notable difference.

In spite of this difference, the consensus among the students interviewed was that high schools sorely need to give more consideration to the special instructional needs of the physically handicapped as well as to their particular curricular and vocational guidance needs. Because no courses were geared to the learning disadvantages of the handicapped, these students were often just put into the "slower learner" courses; for example, blind students who could not use normal textbooks, deaf students who could not use audio-visual materials, or paraplegics who had no use of their hands and could not take notes in class (they were often treated as problem learners whatever their scholastic ability).

Deaf students especially commented on the importance of special high school programs in English and reading, an awareness that seemed to sharpen on college entrance. More important, though, was the practical application of these subjects for deaf students. English and reading skills are imperative for communication with the rest of society, and deaf students were very aware (and resentful) of the double disadvantage facing them because of inferior, casual education in these areas. They were frustrated by their isolation from the hearing society. Thus, they felt an urgent need for programs with professionally trained teachers for the deaf at the high school level, not only for providing a better preparation for college, but also for their psychological well-being.

No standard program geared to the specific physical facilitation needs of college-oriented physically handicapped persons seemed to exist at the high school level. The Department for Vocational Rehabilitation, whose program was mentioned most frequently, seemed to function mostly to provide financial assistance to the student.

Handicapped students also frequently mentioned a desire for guidance counselors who better understood their needs. They felt that their counselors were too academically oriented, or only concerned with students going on to college. The disabled students were keenly concerned with their vocational potential whether or not it related to college attendance.

Special schools for the handicapped were not evaluated favorably by the few who had attended them. A student from a special high school for the blind noted that one of the best experiences he could have had as training for college would have been more interaction with seeing people. Many students agreed that the exclusiveness of such an environment was detrimental to their later interaction with the outside world, and that this segregation made them more self-conscious and resentful of their disablement.

The College Experience

The character of the college experience for the handicapped student varies and must be assessed first by the nature of his handicap and then by the type of school he is attending.

Courses. Students at four-year colleges were generally impressed with the course offerings and the quality of education. In several cases, this may have resulted from the contrast with their dissatisfaction with their high school situations. Consequently, they commented on their increased motivation and interest in education since coming to college. There were concerns, however, about the relevance of the college curriculum. A student at a large West Coast university remarked that college was "way off in an unreal world of aid to no one." According to him, this could be remedied in part by eliminating many freshman requirements, and allowing "students to become more involved in real life." Students from other colleges and universities requested more practical courses such as home economics. These comments seem to reflect the pragmatic and vocational orientation of these students and to reinforce the expressed need for specialized vocational guidance, even at the college level. Furthermore, the comments indicated the underlying anxiety expressed by most physically handicapped students about preparing to live and work in the larger society.

Students surveyed at two-year colleges also generally had concerns about their education. They enjoyed the courses they had but most commented that there were just not enough available. Three interviewees from a special college for the deaf within a community college commended the quality of the courses as well as the materials and other aids available to them. Although they felt they were receiving a good education, this did not compensate for their lack of interaction with hearing society.

Professors. The physically disabled students interviewed were almost unanimous in their satisfaction with student-teacher relationships. Many remarked that the professors were friendly as well as helpful. The only exception to this came from a number of complaints from students attending a small state college. One student discussed the need for teachers to become more familiar with the needs of handicapped students. Another said that the professors, and the student body on the whole, seemed to have many misconceptions about his handicap (blindness) and misjudged his abilities and limitations.

Social Life and the College Environment. Almost all of the respondents, regardless of the school they were attending, were pleased with the atmosphere at the college and the friendliness of the people. The opportunity that college provides to achieve some independence from home, to be a part of the real world of normal peers, was most important to the disabled, and most were enthusiastic about their personal relationships with others.

Deaf students seemed to have a harder time feeling at ease in their college situation than did students with other types of handicaps. As compared to the blind students, they complained much more frequently of feeling alienated by normal people, of hearing people having a distinct advantage over them, and of how difficult it was to interact with them.

While many handicapped students saw their campus atmosphere as friendly, felt accepted by other students, and maintained sustaining friendships, they still frequently felt important voids in their social life. These seemed to be obviated at one institution that provided a number of clubs or student associations which were accessible to handicapped students and participated in by them. Yet, many regular social outlets that normal students enjoy were not relevant. Athletic events were generally not of interest (although an annual "roller derby" or wheelchair race pitting normals against "wheelies" at one institution was a popular campus event). Concern with student cliques seemed stronger among the handicapped than among other minorities. In short: for the disabled, satisfaction with social life seemed to be a function of the degree to which there were opportunities for their participation, with physically able students, in an equal or contributory fashion. The role of the institution in creating opportunities seemed particularly important. On some campuses, getting to a social event, as getting to class, was a physical problem.

The special college for the deaf was again an exception. The overwhelming feeling of isolation from hearing society seemed to preclude any satisfactory social life. One student who feels "left out" of the hearing society said, "We need more social programs with hearing people."

Special Services

The main impression noted about the Special Services Program for handicapped students is the fact that only a small number of interviewees participated in such a program. Yet, where Special Services programs existed, reactions were positive. At one West Coast college, the program provided counseling and living support services., Students commended the high degree of student participation in the organization of the program at this school. Although all disabled students were not involved, at least one student remarked that the counseling service had done a great deal to build his self-confidence and self-image. The supportive effects of Special Services was also praised by students at another school. Here the program was responsible for supplying tutors, interpreters, and teachers for the deaf.

Although attitudes were quite favorable toward Special Services, the same criticisms were made by disabled as by other participants: they felt the programs had inadequate funds and touched too few people or provided too limited services. (The disabled were perhaps more vocal than any other group about funding limitations.)

Finances. Though the disabled students were not necessarily poor, finances were again cited as a universal concern. The majority of students listed state and federal aid as providing over half of their support. The students made a strong plea for more part-time jobs to compensate for the inadequacies of their financial aid, expressing, at the same time, a desire to be independent, especially from the government. Even students who had no real financial worries were anxious to have some kind of job.

Other Special Programs

Programs sponsored by the Department of Vocational Rehabilitation existed at most of the schools where handicapped students were interviewed.

Dimensions of the program varied from college to college, providing monetary support primarily for the individual students.

The Vocational Rehabilitation program also funds special support services such as counseling, special materials, and aids needed by handicapped students. For the deaf, this seemed to involve mostly reading materials. One school provided a remedial program in English which was well-received by the students. In another instance, a program provided Braille texts for the blind, and, of particular importance, researchers and readers. Students seemed appreciative of these programs to the extent that they existed.

The main criticism of the Vocational Rehabilitation programs voiced by the students was their limitation of scope. They expressed needs for more special counselors, more extensive and flexible financial components, and more student input for relevant improvements. The blind students especially complained of not being able to find, or finance independently, enough readers and researchers. Another complaint, registered at one school only, was that although there was sufficient money, the program was not sufficiently flexible or responsive. At two schools, students complained strongly about either poor or slow appropriations of money. Blind students had particularly strong opinions in this regard.

The handicapped students were particularly sensitive, of course, to the presence of any restraining barriers. At one school, the Vocational Rehabilitation program was commended for the excellence of its remedial program designed to offset educational disadvantage suffered in high school, but criticized because some handicapped students could not easily reach the room where this work was offered.

Work-study was mentioned as a special program at several of the colleges. Here again, the most frequent negative comment was the inadequacy of funds to make it really effective. The work was considered a valuable experience, yet it did not provide enough money to be of any significant support or to compensate for the time it took away from school work. Needs for financial independence, and a valuing of self-sufficiency, seemed characteristic of disabled students.

The desire for special programs stressing vocational training and placement was almost universal among the physically handicapped students. There seemed to be an overwhelming feeling that while loans and financial aid might support them while in college, career guidance or job training, directed especially toward helping them to surmount their handicap, was their more critical need. This echoes the ever-present, overriding concern of handicapped students with their self-sufficiency in the post-college world. Yet, the students seemed optimistic about what they could do with a little more attention to their needs and suggestions.

Two of the schools where disabled students were interviewed offered special college adjustment programs for their handicapped students; only one of these was favorably received. At the school where reactions were positive, the program was noted to be a very personal activity; it was a helpful and reassuring service. At the other school, the response was overwhelmingly negative. That program, held during the summer, had as its purpose to familiarize the student with the college environment. It included preregistration and academic counseling. Although the students noted that this program reassured them that they had the abilities needed for college, it was found unsatisfactory because, being held in the summer, the handicapped students were the only ones on campus. In short, they felt it was totally irrelevant to what a real college situation would be like for them.

Overall, a sense of well-being does not seem dependent in any way on the proximity of others who are disadvantaged, nor does proximity build strong group cohesiveness. Instead, their need is to join, as best they can, the world of nondisabled peers. The most important concerns which emerge from the students' evaluation of special programs, as well as from their general high school and college experiences, are (1) provisions that facilitate their contact with the broader population of nondisabled, and (2) some kind of assistance toward and assurance of vocational opportunities. And, although they are not particularly vocal about the physical barriers their handicap defines, it is clear they need access to living and learning spaces, and some way to receive and transmit information their studies entail.

G. A Profile of the Puerto Rican Students

It should be noted that the following comments and interpretations are based on a sample of 20 interviews; therefore generalizations to the population of Puerto Rican Students are not warranted.

The High School Experience

For the most part, the Puerto Ricans in this study were raised in urban areas in the Northeast and attended urban high schools. (Three reported attending a rural high school.) Of the total, only three students felt that their high school education provided them a good preparation for college. The others consistently rated their high school education as poor. They said they were almost never placed in college preparatory courses and they were not encouraged to go to college. At least two of these students commented that from early years in school, Puerto Rican and other bilingual students are classified as slow learners or "not college material." One elaborated the point suggesting that this is probably due to their difficulty in reading English, and consequently their poor performance on standardized tests. "Teachers didn't understand English barriers for Puerto Ricans and therefore didn't spend any time with them to assist in their English," was the comment of one student as he explained why he felt discouraged by school and "gave up the idea" until finally, much later in his high school years, another teacher showed concern for his problem with English. He said she provided the only encouragement or positive influence he found in the school.

Like other Hispanic students in the study, Puerto Ricans reported Spanish as their native language. English is a second language used in school and outside the home in contacts with non-Spanish-speaking people. Language, moreover, seems to be one of the major barriers these Puerto Rican students face in their educational pursuits. (A few noted that language is also the basis for much of the discriminatory treatment they encounter in other areas such as employment.) In a school situation where there are seldom any Spanish speaking teachers or counselors, communication is frustrating. As a result, it was felt that many Hispanic students lack self-confidence and do poorly in school.

Six students indicated that they had participated in a precollege program, such as Upward Bound, the Educational Assistance Program, the Harlem Community College Prep Program, or a summer orientation program at a particular college. The students seemed to be generally positive about these programs, with the exception of one who had attended a summer orientation program. He asserted, "The program had little to do with my educational success." Nonparticipants gave little indication that they knew about precollege programs.

The College Experience

A notable relationship was observed between the attitudes of Puerto Ricans about their general college environments and the location of these colleges. Five students were attending a large urban university in the Midwest. The remaining 15 were attending institutions in the Northeast--a large state university, and a smaller one (both located in small towns); and two-year urban institutions which were predominantly Puerto Rican and black. Thus, all but two of the institutions were located in large, congested areas; and the general complaint was that they were dilapidated, overcrowded, difficult to commute to, noisy, and, therefore, "not the most desirable environment for learning and studying."

Nevertheless, the students who attended the urban two-year institutions were unanimously satisfied with the quality of the academic program and the education they were receiving. They commended the institutions for the quality of the faculties (who, incidentally, were either evenly divided black and white or majority white). Most faculty members were viewed as "highly qualified" and "considerate of the needs of the students." A very small minority were considered "racists who try not to show it and who try to be liberals." Attitudes toward student peers were even more favorable. There appeared to be a genuine feeling of friendship and mutual respect. "I'm with people I can relate to," said one young man, "and that makes a big difference." The overwhelming feeling, moreover, was one of satisfaction with the school program, with other students, and with student-faculty relations, in spite of criticisms of the physical plant and surroundings.

Puerto Rican students at the predominantly white universities were quite the opposite. They were not very happy and seemed to have many problems adjusting. Even though they considered the academic programs good, they felt many pressures from the overall environment that interfered with their academic performance. For example, three students, at different institutions, characterized the evironment as cold, particularly toward minorities. All three complained that students were "too competitive." White students who, they said, were immature and not exposed to life nevertheless considered themselves "too good for us." The Puerto Rican students also noted the presence of student cliques, and felt that hostility and rivalry among different student groups was frequently a problem. Similarly, large classes, grading practices, and "a completely white-oriented conversation and life" were sharply attacked by the students attending these universities. Several students commented that most faculty members were competent but they were too busy for the individual student. They were hard to approach and they spent too much time "doing research."

Puerto Rican students from all the institutions were unanimously critical of college administrators for being distant and having poor, if any, communications with students. Administrators were blamed for almost every dissatisfaction--inadequate buildings, student-faculty communication problems, etc. One student saw the problem as, "One half doesn't know what the other half is doing," noting that this resulted in difficulties for students needing help or information. Another said, "They don't seem to care about students; they give you the run-around or they don't do anything about problems brought to them." Although it was often difficult to tell from the students' comments exactly who they considered "the administration" to be, it was clear that they encountered serious problems in contacts with the nonfaculty bureaucracies of the institution.

Students in the two-year colleges mentioned the excitement of the prevailing spirit that keeps them struggling, against odds, to get an education. Student activism and involvement in various school activities were also found exciting and encouraging. At the universities, on the other hand, the opportunity to meet a diversity of people was mentioned frequently as a valuable part of the college experience; the variety in course selections and speakers brought to the campus were undoubtedly the most exciting things about these schools for the Puerto Rican students.

Puerto Rican students frequently interspersed comments about social life when they were discussing any aspect of their college experience. When asked directly about social life, most Puerto Ricans at the two-year institutions spoke favorably of their student peers and of associations with them, but noted that commuter or night students have little time to socialize.

Comments about social life from those attending the universities paralleled those they made about their environments: "[Social life] is centered around whites," "Too white-oriented," "Very poor for Puerto Ricans because of overt discrimination," "Lots of cliques--each group sticks with his own people," and "Centered around those with money, does not exist for others." At least two students emphatically stated that while the institution provides outlets for the majority students, the Puerto Ricans and other minorities have to plan their own activities, social and otherwise, and use their own money to finance them.

Many recommendations are implicit in the student reactions reported. Others made explicitly by the interviewees include:

(1) Communications: (a) Improve communications between administrations and students. (b) Improve communications between faculty and students and finally, among students at large, regardless of ethnic memberships. (c) Inform students, particularly minorities, about activities offered to students or available on campuses.

(2) Courses and classes: (a) Superfluous requirements and courses should be cut. (b) Courses dealing with Spanish culture and life should also be offered. (c) Large lecture classes should be abandoned.

(3) Counseling: Colleges should respond vigorously to the need for guidance and counseling of students (especially Puerto Ricans and other Hispanics) who have academic, social, or personal difficulties.

(4) Personnel: Hire Puerto Rican teachers, administrators, counselors, or staff at any level from grade school through universities.

(5) Students: Higher education opportunities should be made available to many more Puerto Rican, Hispanic, and other minority students.

(6) Books: Prices should be cut or specific courses should have a library lending system operating out of the classroom.

Special Problems

One of the most pressing problems in college, listed by 16 of the 20 Puerto Rican students, was finances. This should probably be expected in light of the fact that each Puerto Rican mentioned expenses as the single most important factor in determining which college to attend. Furthermore, slightly more than half of the students were attending a college that was within commuting distance of their homes. The others stated that they chose the college that offered the most in financial aid. In their comments about financial pressures, well over half of the Puerto Rican students noted that they have to work in order to go to school and to help their families, or that their being in college (particularly when they are away from home) is a hardship for their families.

Research and writing in general emerged as the second greatest concern. Explaining why writing was the source of some concern, one student said, ". . . because I get tense when I have to express myself in English." Prior school work has not eased, obviously, the discomfort in working in English as a second language.

Handling course work well was also mentioned as causing some worry, although the interviewees seemed to be doing well: half indicated their overall grade average was B while the other half gave C (mostly C+) as their average. One reason noted for anxiety over grades was the need to maintain eligibility for financial aid. Most of them said, however, that their grade average was a fair representation of their performance. Those who claimed grades did not fairly represent them gave as reasons (1) poor relations between students and faculty, (2) interference of work with school, (3) or personal and social conflicts.

Special Programs

By and large, Puerto Rican students in the study did not participate in special support programs in college, and none reported participating in the federally supported Special Services Programs. Four students mentioned financial aid; seven work-study, including Vista, a job-related community project; and two mentioned tutoring. (Others indicated that they had never participated in any kind of special program.) Work-study students complained that work interferes with studying time and they are unable to make enough money, especially for personal needs. Several students criticized the process of awarding work-study and financial aid, noting that there should be a more careful review of both sorts of application to determine real need.

Most students expressed a need for tutorial and counseling programs when asked about them, but they said such programs should include at least some minority staff who understand minorities. Also, they recommended some kind of awareness program that would teach all types of students about the culture and life styles of other groups. Very few indicated membership in or need for an ethnic identity group.

With regard to the Puerto Rican students' attitudes toward special facilitation, it should be remembered that the twenty interviewed tended to do a little better than average in academic performance, and, on the whole, were pleased with their academic programs. Their most serious and persistent common problem was that of finances.

Plans for the Future

Whatever their problems, the Puerto Rican students planned to continue their education and to move on primarily to service areas such as teaching or social work. Most of those in two-year institutions stated they planned to transfer to four-year institutions; only three students said that they were undecided or had given some thought to dropping out of college to work.

H. A Profile of the White Students

An outstanding, general, and pervasive feature of the reports of the poor white students interviewed is that in contrast to the other student subgroups their poverty status seems to have very little relationship to any characteristic attitudes and experiences in high school and college. They identified themselves with the majority, or with whites in general, and they failed to reveal any self-consciousness as a discrete subcultural group.

The High School Experience

Almost all of the poor white students in this study, in all areas of the country, came from small rural high schools. They felt that there were significant shortcomings in these high schools, and yet they reported that they had been generally happy and content. The academic quality of their schools was frequently considered poor. Several students from extremely rural environments commented that teachers were poorly educated or that they were trained in a subject area different from the one they were teaching. Schools were also frequently reported to be ill-equipped and in need of modernization.

Only two or three students complained about social discomfort in high school due to their financial status. One student, who was totally negative about his high school, said that the school showed favoritism, but he would not elaborate the point. Another felt "stigmatized" for being different, but none cited problems that could be associated directly with poverty.

The majority of the poor white respondents had demonstrated outstanding academic achievement or involvement in school activities. They listed themselves in upper fractions of their classes, they had held positions in many organizations, and they had received scholastic honors upon graduation. This finding may be due, at least in part, to the relatively noncompetitive nature of the schools these students attended, but a better explanation may be that these poverty-origin whites possessed in common a high degree of motivation, and a high degree of academic and school-related social success. They may also have had greater ease in identifying with the Horatio Alger tradition, where hard work and persistence wins, rather than with a notion that the discriminatory forces in the larger society can defeat the best efforts. Also, the students may have come from schools where there is not much contrast in economic levels of parents, or where cliques along socioeconomic lines are less likely to form.

The small minority of poor white students who came from urban environments had generally more favorable attitudes toward their high schools, and felt well prepared for college. A number of them commented that the schools were educationally progressive or had teachers who used new teaching methods and techniques. The city high schools were perceived as fairly well equipped, and they were usually college-oriented. (The majority of poor whites interviewed had taken college preparatory programs.) Again, as with those from rural schools, most had good records of achievement and involvement.

There was a still smaller minority of students who listed attendance at urban or suburban schools, either parochial or public, that emphasized college preparatory programs, but who felt that these schools were completely inadequate. One student complained, for example, "They taught memorization rather than thought processes."

Upward Bound

Upward Bound was the only "special" precollege program mentioned, and only 10 of the 166 students interviewed had participated in it. All 10 of these students did feel positive about it for one reason or another, noting that it provided the major impetus for attending college. The courses, the counseling, and the testing programs helped build their self-confidence. In other cases, the program encouraged them by showing them a school and by informing them about financial aid opportunities. One girl felt Upward Bound was invaluable. She was one of the few who had never done well in high school because, she reported, she always worked for her parents and had never had time to study. At the Upward Bound summer program she found that she could do well, that she wanted to go to college, and that the program could help her. In short, Upward Bound had, in one way or another, made higher education a reasonable or a realistic option.

In one college, a respondent complained that he had found no scholastic worth to the precollege program at all; however, he thought the social experience of a mixed racial group to be a redeeming value. The only other criticisms made about Upward Bound were the inadequate numbers of counselors and the lack of options provided in choice of college.

The College Experience

In assessing the students' reactions to the colleges they are attending, it is important to note that the majority come from similar backgrounds with regard to economic status and previous satisfaction with schools, and that they have most frequently entered colleges having characteristics compatible with that background. Where tuition costs are low, these students may not be much different from the modal students, and this may also help explain the easy and happy adjustment. In environments devoid of major contrasts, it is probably reasonable to expect little cause for social or economic self-consciousness.

The poverty white students tended to base their choice of college on considerations of cost and proximity to home rather exclusively, though they rarely talked directly about their poverty status, or associated that status overtly with choice. Unlike the other groups, they rarely spoke of a common experience with others like themselves. Poverty white students were generally located in small southern or midwestern public colleges, and it was virtually impossible to find any student at these institutions who was not most enthusiastic about his college. Most students gave the same reasons for their enthusiastic attitude: "friendly atmosphere" . . . "the students are all one big family," and "the teachers are friendly and concerned, and willing to spend time on an individual basis." In some schools, even when individuals found fault with the courses, they seemed pleased with their general college experience because of their relationships with other students. However, most students commented that with regard to social life there "wasn't much going on," as they felt could only be expected at a small college. Because of the friendly atmosphere at the colleges, there was seldom any trouble mixing in any events. There was no question that these students felt very much at home in and enthralled by the total college environment. Thus, in these institutions, students reacted not to whether they were excluded or not from social activities, but rather to whether or not there were any social activities available.

When school populations were more cross-sectional, there was a marked difference in the poor white student's reactions. For example, at one high-tuition small private school located in the South, students were generally satisfied with the congenial atmosphere, but they complained that the administration catered to the rich. "People with money are given more educational attention." Also, prevailing social events there required more money than they could afford. At another small private college on the West Coast, students had similar criticisms. In addition, they said teachers were egocentric and cared more about their own careers; other students were considered "snobs." In some larger universities, students were concerned that there were few free activities which they could attend. This was a matter of the need for "proper clothing," as well as of participation or admission charges.

At the larger, more metropolitan universities, the poor whites were disappointed over the absence of the interpersonal climate that pleased their counterparts at the smaller schools. They complained about the isolation they felt, about the difficulty of making friends, about the lack of community, and about the aloofness of the professors. One student termed his university a "diploma factory" which was interested more in its taxpayers than its students. In the large urban community colleges, not only was the atmosphere totally unsatisfactory, but the quality of education was also considered inferior. According to the students, teachers did not care about their courses and were just going through the motions to fill the requirements of their salaries. College seemed to be merely a continuation of high school.

The universities seemed to be too big for economic distinctions among students to be noticed. As one interviewee summarized it, "Many students are poor at this school so there's no distinction. Even those who are better off don't show it . . . . Financial position is not necessarily a factor in terms of students relating to others."

Several students expressed a strong personal commitment to their education, and with this, a concern that other students in the general student body did not share this commitment. In the larger universities in particular, the interviewees made such comments as "all the kids . . . came to college to party," or "most of the students seem dumb." One is tempted to interpret such responses as comprising a "poverty perspective," noting that some of the prior experiences of economically disadvantaged white students may have made their current university experience extremely precious, and consequently they resent others who do not value the opportunity. But the students themselves do not indicate that this interpretation should be made. They do not credit poverty as influencing their attitudes at all. Instead, they credit their previous success, their current social satisfactions, and their pragmatic but upward mobility aspirations for their outlook.

Only two interviewees indicated any defensiveness about the school they attended. One girl said she wished the specification "community college" could be dropped, as she felt it had a stigma of lower-quality education. Another was self-conscious about the status of her college because of its special attention to financially disadvantaged students.

The students were remarkably certain about their futures. The vast majority of them could state a definite career choice and, in most cases, it involved some degree of graduate education. Several noted that college had been for them a maturing experience and that they had learned how to interact with many people. One student said, "It has erased many of the fears I had about getting out into life." College might have this effect on any student, but for the disadvantaged it may have special significance.

Finances

Not surprisingly, finances seemed to be a general concern among this group of students, although few seemed particularly troubled by money matters. The students who gave special attention to their financial situation were those who were worried about being able to continue their education from year to year, or who feared cutbacks in scholarship funds or changes in federal guidelines that would make them ineligible. In addition to this, the curtailment of social life was mentioned as a frequent concern. It was felt that the institutions should make some provision for financial aid students to share more fully in social and cultural events. For example, one student suggested that it would help if he could work at some task a few hours instead of paying to go to a concert. Finally, an exceptional and rather bitter remark came from a student who felt that at his school the Indians and Blacks generally fared better financially because, relatively speaking, they received so much federal aid.

Special Programs

Almost all the poor white students were involved in some measure of financial aid. Government programs mentioned include the National Defense Loan, Educational Opportunity Grant, and the G.I. Bill. Very often students did not acknowledge these as special benefits, but rather as a necessity.

There were, nonetheless, a few criticisms of the various government programs. The one major complaint concerned federal criteria for awarding financial aid which were felt to be unfair. For example, some students noted they cannot obtain aid because their parents are just over the strict income bracket. Other shortcomings cited were the delays in getting money to the students, and poor information about available aid. Financial officers at particular schools were charged sometimes with favoritism in granting awards or were not at all sympathetic or helpful to the individual students who appealed to them for advice or assistance.

Work-study, another aspect of financial aid, was familiar to most of the students. Although occasionally someone noted that work-study builds self-confidence or provides job experience, students felt that pay rates were too low. Students emphasized that the jobs themselves were very bad, many menial or degrading, especially since the program administration makes no effort to match a student to a relevant task. The students felt that better placement was possible and would greatly improve the program.

A number of students outlined the desire to see local financial aid programs branch out into other aspects of student life--to include such necessities as entertainment, facilities, and health services.

Except for monetary assistance, poor whites were the target of few other special benefits or opportunities. The Special Services Program involved only very small numbers of this group. Yet, in the four schools where it was mentioned, it served the students as a tutoring and counseling activity which they asserted was not only a great academic help but also an ego booster. Moreover, the administration of the service, at all four schools, was very receptive to students' reactions and allowed them a great deal of participation in its organization. The one shortcoming frequently mentioned by interviewers was the lack of student awareness of the availability of such services.

The only other type of program in which poor white students participated was summer orientation activities, mentioned at two schools. At a large university, this consisted of six weeks of counseling and tutoring in the summer plus follow-up counseling and reduced course load during the school year.

In summary, the most significant characteristic of the poor white students' reaction to special programs was their take-it-or-leave-it attitude. Although many responded that no programs existed at their schools, a comparable number said that they were not interested or had never considered whether or not such programs or opportunities existed. Yet, those who had been enlisted into the programs seemed pleased and, in turn, urged that these programs be more widely promoted.

Taken as a group, they appeared very happy and effective in the college atmosphere. The vast majority seemed to hold a common expectation for college: the chance to obtain a quality education toward a good job coupled with a friendly, concerned, community atmosphere. Since the important aspects of these requirements were met, they were overwhelmingly satisfied as a group. They were also highly goal-oriented, with definite careers in mind. All of this comprises a homogeneous group personality, but they were relatively invisible in the majority culture, and they seemed to feel that they had more to lose than to gain in identifying themselves as a minority group. This has strong implications for distinctive intervention and support strategies within the Special Services program.

I. Summary of the Interviewers' Review Sessions

Implicit in this study is the association of disadvantaged with ethnic groups (black, Chicano, native American, Puerto Rican). The students suggested a more accurate portrayal of them would be minority students who are poor and who have had few formal educational advantages. Because of the growing presence of these and physically handicapped and poor white students on college campuses across the country, it is imperative that the extent of their integration into the still-traditional atmosphere of academia be accurately assessed and their continuing needs precisely appraised.

The debriefing sessions provided occasions for the project staff to meet with student interviewers, to learn of their experiences, and to raise questions provoked by the reports of the interviews. Interviewers were also disadvantaged students--mostly juniors and seniors.

Two debriefing sessions were held. Students from western institutions were convened in Albuquerque in early June, and students from eastern institutions in Washington in late May. The debriefing sessions lasted approximately a day and a half; students first met separately by racial or ethnic group, with a staff member or consultant of the same background; then the entire group was brought together for reports, general discussion, and recommendations.

This summary, drawn from the review sessions and from the electronic transcripts, will attempt to integrate the opinions of student interviewers about their own survival on college campuses with their assessment of what other students conveyed to them during the interview. Opinions by the different subgroups will be reported first, followed by a summary of common themes.

Black Interviewers' Review Sessions

High School Experience. Most of the black student interviewers criticized their preparation for college. They felt Blacks generally were not equipped with the basic skill proficiency in reading, writing, arithmetic, and core subject areas. The poor skill level of disadvantaged black students was attributed to several factors:

1. Many students were screened out of college preparatory programs in high school. The counselor was named as the usual adversary since it was his responsibility to advise students. However, faculty members were at times equally guilty. To some black students the hope of college was only realized through the insistence of parents and close friends or admission to one of the special precollege programs, such as Talent Search or Upward Bound. The precollege programs were considered valuable by students, but they could serve only a limited few. Often, students in an area were unaware that any precollege program existed. They felt strongly that the high school should be made to become more responsible in disseminating information about these programs to all students.

2. Students complained that many teachers were incompetent or did not evidence sincere interest in teaching. In some instances, teachers were placed in subject areas for which they were not trained. Students put the blame for such misplacement on the principals and other school administrators.

3. Black students from predominantly black public schools were vocal on the effects of school desegregation. Many felt that they had actually lost in teacher interest and student learning. One student paraphrases this sentiment succinctly:

> . . . black schools had poor facilities, but sympathetic teachers interested in the students. Desegregation distributed black students to equipped schools but principally white teachers who were disinterested in instructing students.

Students affected by desegregation were often bitter about the fact that during their four years in high school they were shuttled to four different schools. There was no continuity of education and the quality of instruction varied from school to school.

They recommended that college-oriented courses begin early in the school years. Earlier attention to college subject areas will, one stated, ". . . minimize psychological anxiety about doing these courses later in one's educational career." High school counselors were poor and did not help while they were in school; nor did they encourage pursuit of college careers. Some students were troubled by unreasonable high school rules which do not facilitate learning. For example, a student recalled the expulsion of another student for "cussing out" the principal. His reflection is a commentary on the school:

> . . . expelled for a whole semester. School is supposed to be a place for learning. I think that if the teacher and the principal have gone to school five or six years to learn how to handle students, why should they have to expel a student a whole semester.

College Experience. In general, black students agreed that college provided an opportunity to increase their career options. One student said, ". . . being a black you know you have to get out there and get some kind of education and you have to get that history and that background." Another pointed out "Many students have greater motivation to study in college than they did in high school." The students' poor high school background necessitated, they felt, remedial instruction in college. However, because remedial instruction carries a stigma, students are reluctant to admit their need and try to find assistance. Teachers who teach remedial courses sometimes make a student feel he's "dumb." These courses, the interviewers reported, do help students to succeed; however, many would like them to carry credit. Some students are forced to spend up to more than a year in these noncredit remedial courses, thus delaying their completion of college by an equal amount of time and increasing costs accordingly.

Students felt that college accommodated those from suburban schools more than students from the inner city public institutions.

Faculty were felt to be apathetic or even hostile towards black students on predominantly white campuses. A few white faculty showed genuine concern for the success of black students but often they are so politically impotent in the faculty organization that they have little effect on black students' campus life. Since many black and other minority students are specially recruited and often filtered through a "special program," faculty, the students feel, (1) expect these programs to resolve all deficiencies, and (2) conclude that all black students are associated with a special program and have less ability than the general student body. Thus, the black students have a double disadvantage in college; they are stigmatized by the special program stereotype, and are short-changed by faculty who transfer their own responsibility to the special program staff.

The presence of black students on white campuses has generated the demand for black studies programs and/or courses pertinent to the black experience. Where there are significant numbers of blacks on campus, these requests are inevitably met or at least considered but usually not without caustic debate among students, faculty, and administration. Where there are token Blacks on campus, the efforts at securing ethnic studies and centers are frequently frustrated. The Blacks on white campuses voluntarily segregate themselves for "social insulation and academic survival." Yet, Black Houses have become focal points of controversy on many campuses.

An often-cited remedy for unsatisfactory black student-faculty relations is an increase in black staff on campus. However, black staff members are usually restricted to coordinating special programs, teaching "black courses" or functioning in a superficial administrative position "to pacify us black students." Students felt that some directors of special programs are unable to effect better delivery of college services to minority students because of their "lack of administrative muscle."

One area of the college experience which caused considerable discussion and strong negative evaluative statements was the college management of financial aid. Students said they received only limited information on the different forms of aid and student responsibility. For some students, financial aid was restricted to one kind such as National Student Defense Loans. Policies on distribution varied, processing was slow, and funds insufficient.

Hispanic-Origin Interviewers' Review Sessions

The Albuquerque subgroup review session involved only Chicanos, but in the Washington review session Chicanos were combined with Puerto Rican students. A summary of their report and discussion follows.

Grade and High School Experience. The grade and high school experience of Chicanos did not, they feel, prepare them for college. One student said, "High school academic standards are poor, . . . teachers didn't give a damn about the students . . . college advisors discouraged students." Another added, ". . . very bad high schools . . . not prepared for college . . . teacher's attitude, if you wanted to learn, learn; if you didn't want to, you didn't have to."

Chicano and Puerto Rican students feel they undertake a tremendous burden in attempting to secure an education. Many public schools, they report, are totally unsympathetic to students with language barriers. Hispanic students are written off as "dumb" or mentally handicapped and placed in special classes. The interviewers feel such treatment shows default by the teacher in his responsibility to engage the student in a learning experience. Hispanic instructors and/or bilingual programs are a rarity in the grade and high schools.

On some occasions Hispanic students reported being put into courses in which Spanish or English was taught as a second language. At times, the assigned teachers for whom Spanish is a second language are restricted to textbook Spanish and do not appreciate the language orientation of the Mexican-American or the Puerto Rican. Spanish teachers are sometimes totally insensitive to the dialects, styles, and cultural emphasis of the Spanish language as used by different people of Hispanic origin. The students recommend that bilingual programs for them be tuned to the language style and cultural proclivities of the group.

In the public schools Hispanic students are frequently placed in non-college preparatory tracks. Standardized tests often label Chicano and Puerto Rican students in grade school as retarded, and the classes they are then enrolled in so bore them that they soon abandon their education. For some students, communicating with teachers and counselors becomes so frustrating they drop out. One student suggested that, "learning command of two languages and cultures is an indication of ability and intelligence."

The College Experience. Many Hispanic students feel that the admissions tests and criteria used by colleges are discriminatory. Students are labeled as "the Special Program type." A number of students characterized college officials and faculty as having a "welfare attitude of helping these neglected students" while at the same time demonstrating a minimum of personal commitment to this objective. In some instances, the college admission of a Hispanic student is intimately linked to family pride. Not to succeed in college disparages the family as well as the student. The Hispanic students felt that too frequently the regular college counselors, faculty, and administration were insensitive to the social and personal significance of their succeeding in college; Hispanic faculty and staff would "understand me."

For the Hispanic student, college presents many of the same problems in communicating as do the public schools. It is frustrating for these students to convey their competency and knowledge when the dominant mode of communication is in their second language. Many students may understand more than they can communicate; yet, faculty rely on English as the medium for students to use in demonstrating their ability. A lot of students feel that tests of competence should be sensitive to the language barriers and that faculty should thus be more accommodating.

Hispanic students support strongly the establishment of ethnic organizations on campus. The camaraderie and "shared life style" such groups provide is attractive. They also associate ethnic organizations on campus with Special Programs that employ Hispanic teachers and counselors and that provide bilingual programs to help the student gain proficiency in English as a second language. Moreover, Hispanic counselors are encouraging and helpful in instilling self-confidence and feelings of worth. Likewise, ethnic studies are interesting and often a rewarding digression from the tedium of traditional or required academic courses.

Ethnic organizations on campus are also viewed as vital social stimulants. Without them, there would be no social or cultural activities relative to the Hispanic or other minority group experience. Many students rebel against being forced into adopting cultural interests and traditions that are basically different from theirs. The institution should impart knowledge, not change the basic character or cultural heritage of students.

Many students entered college with little, if any, knowledge of financial resources provided by the school. In some schools, special programs attempted to inform the students and accommodate their financial needs; yet, many needy students were naive about sources, procedures, and policies for securing financial aid. One student recommended that all available information on financial aid should be shared with prospective students. Similarly, high school advisors, and college advisors, in particular, should be knowledgeable about the kinds of financial aid offered by the college.

One interviewer remarked, "This knowledge of financial aid should be expanded to reach schools located outside the cities. Information about many supportive services and special programs is made available only to urban Chicanos, when it's made available at all. There are too few instances of such information reaching rural Chicanos." He speculated further that some school administrations are aware of the availability of supportive programs, but they do not implement them or make them known to students "because they are afraid they (the programs) will make the Chicano students militants or rabble-rousers."

Overall, the Puerto Rican and Chicano interviewers were discouraged about their college experiences. However, a few Puerto Ricans were not in predominantly white institutions and they had fewer complaints. Others joined Chicanos in urging that institutions examine programs and other phases of their schools where Hispanic students are involved. They were highly critical of the lack of attention and concern shown them as a group.

Physically Handicapped Interviewers' Review Sessions

"People are always telling us what our limitations are instead of what our capabilities are." This comment by a physically handicapped student illuminates what seems to be the most common theme--that of a problem with attitudes of society in general, and school administrators and counselors in particular, concerning the abilities of physically handicapped people.

Grade and High School Experience. The precollege experience of handicapped students appeared to vary drastically depending upon whether they had attended a regular school or a special school tailored to their specific handicap. In addition, the nature of handicap seemed to play a crucial part in determining the precollege and college experience. Similarly, ease of adjustment in both precollege and college life depended upon whether it was a handicap from birth or recently acquired as from illness or a war injury.

At least one student specifically mentioned that high school counselors were at fault in relying too much on psychological testing to determine whether or not a handicapped student would be encouraged to go to college. Many high school counselors were reported deficient in providing information as to which colleges are physically equipped to accommodate students according to their individual handicaps. In general, students seemed to feel that counselors in a regular high school situation were less prepared to deal with them than were their counselors in college. Given their handicap and the paucity of information, many of the students who manage to enter college are felt to be unusually highly motivated and well adjusted to their life situation. In fact, interviewers reported that a number of these students did not consider themselves "handicapped." They felt that those handicapped students in high school who were not directed toward college or who simply did not plan to go to college were more or less ignored.

The College Experience. A few colleges have facilities designed or modified to accommodate the handicapped; most are replete with innumerable barriers or hurdles. The handicapped student wants to prove his independence, yet may require special assistance such as ramping, electric doors, tape recorders, and bathroom facilities. When extensive building modification is not possible, the students recommended that a wide variety of classes be scheduled in modified buildings. Moreover, some disabled students suffered greatly from the absence of such supporting services as special diets, oral exams, motor skill training, or physiotherapy in the infirmary.

Generally speaking, financial aid for tuition and book did not seem to be a great problem for the physically handicapped. However, several students expressed the need for spending money and would like the opportunity of earning it themselves with part-time jobs; most preferred loans or work-study over scholarships. Disabled students recognized that school administrators needed more funds to install and to maintain the special physical adaptations necessary for their survival on campuses, and pressed more for this support than for personal financial aid.

A few students did describe situations in which receipt of financial aid was contingent upon the student's accepting a counselor's decision concerning placement in a specific major. If the student disagreed or later changed his major, funds were withdrawn. This was interpreted as further evidence of the tendency of school officials to restrict handicapped students according to preconceived ideas about their abilities.

Another crucial need was for counseling by a qualified person sensitive to the needs of handicapped students. Many students suggested that special attention and encouragement be directed toward the recently handicapped student who usually experiences traumatic shock in relating to his new self-image as well as to other people, and also frequently is reluctant to admit his need for special assistance.

They also state that in order to be effective, Vocational Rehabilitation programs should include job counseling and job placement. Counselors for handicapped students, moreover, should provide encouragement and radiate expectations for achievement. Handicapped students asked that they be given the freedom to establish their own goals and not be limited by what their advisors think they can do.

Native American Interviewers' Review Sessions

A number of the attitudes discussed in the four numbered sections below were expressed by the interviewers and their consultant in the two review sessions. They provide a background which is important in considering the level of Indian participation in the study and the reactions of the interviewers.

It seems quite clear that the native American is an enigma to the cultures of the majority and of other minorities, and this may help to explain the preoccupation with self-image and Indian identity. Continued discussion of several of these matters in the review sessions often overshadowed the attention given to specific features of the high school and college experience or to the nature of Special Services programs.

1. Very little was said about Special Services projects or activities. Moreover, when the term was used, it appeared to apply loosely to all sorts of situations, and thus it included the various kinds of financial aid which were available, as well as Talent Search and Upward Bound. In one case, for example, an interviewer noted that, "Special Services has scholarships there ranging from . . . ." The one comment of substance (regarding Special Services specifically) was a complaint that students felt the programs are too narrow; they don't include alcohol or drug counseling efforts, and those are projects sorely needed. This observation was made concerning one school, where Indian students typically were older and where financial aid was available.

2. There was concern expressed by some interviewers (for both themselves and the interviewees) about the purposes and uses of the interview

outcomes, and about appropriate interpretation. On the one hand there was concern that the various programs not be penalized because of students' candid remarks, and on the other a feeling that Indians are always being surveyed about something . . . and nothing happens. There was also some hesitancy on the part of certain interviewees to talk about themselves as people (interpreted as either fear or shyness). Also, there was some discussion about the considerable reluctance on the part of interviewers (and others) to participate in the study at all, although those present had proceeded to carry out the interviewing task. This was alluded to in the review sessions, where the reluctance of the subjects then became a matter of discussion.

3. Most native Americans represent a unique minority in America. Whether living on reservations or more integrated into town life, they have had repeated bad experiences with government agencies and the cultural mainstream. While their isolation to a great extent has been enforced, it is sometimes self-determined because of the overall situation; and an identity crisis appears to be a common problem in any case. Many students suffer cultural shock when they attend "white" institutions. Moreover, they become ambivalent about integration into the larger society (either whether to enter it at all, or to what extent); that is sometimes expressed by a desire to "return home" after post-secondary training. Native Americans appear to be the least acculturated of all minorities, and very understandably so, and this fact itself makes them a minority among minorities (without respect to actual numbers). They feel, to an extent, overshadowed by and threatened by the general American culture as well as by other minority groups, and unsure about individual and group destinies. Should they integrate? Should they stay isolated? Should they just give up in resignation? Finally, as a general rule, Indians are not organized into functioning action or pressure groups that speak for the minority as a whole.

4. Few interviewers were involved in the Indian review sessions (three at one meeting and five at the other). Several of the observations made in the following sections were mentioned by only one person (speaking either for himself or for the group of students he interviewed); thus, while these constitute legitimate and expressed reactions, they do not represent consensus among all interviewers who participated in the review sessions or all interviewers who worked on the project.

The High School Experience

The predominant theme with respect to the high school experience related to problems with racial-ethnic harrassment at the public school attended. For some, such prejudice and fighting was an assumed fact-of-life (with whites and mixed-bloods), and drinking was an expected reaction and antidote.

One interviewer noted, however, that in spite of the potential negative attitudes at public schools, those he interviewed were outgoing individuals and school leaders, and had done well academically in their public schools.

Another interesting observation was made with regard to public schools: That Indians going to public high schools frequently choose the smaller ones presumably in order to avoid heavy doses of prejudice.

The only reference to high school influences on college attendance was a statement, again by one interviewer, that both Upward Bound and individual teachers had exerted positive influence in this direction. Upward Bound was credited with encouraging all seven interviewees (at one institution) to attend college. In another case--where students were older and indeed had not necessarily finished high school--the interviewer made the point strongly that only extra-school influences had been operative.

It was noted that a number of students went to boarding (reservation) schools. One interviewer had talked with only public-school attendees, and wished later that she had interviewed those from boarding schools, assuming they would have had their own special problems to reveal.

The College Experience

A number of observations by the interviewers (mostly in their own terms, but sometimes with reference to those whom they interviewed) support the continuing sense of isolation, discrimination, and ambivalence during the college experience.

One noted that the preinterview materials had been filled out by the college representatives for the white students, but not for the Indians; that job was left for the Indian interviewer. Another indicated that the assistant director of a Special Services project is an Indian "and that's about the only place where we really have like inroads into things," and someone to talk with. Both subjects and interviewers remarked that Indians, coming from quite isolated enclaves, go to college hoping to find an "Indian experience" and sense of togetherness. But once there, there is little to find because of the sense of "feeling lost," the smaller number of Indians, the sense of resignation about life and self--and as one noted poignantly, "The trouble is they can't understand the Indian themselves." On top of this there appears to be a quite common difficulty in "understanding the whites," which apparently represents cultural distance as well as ethnic prejudices.

A major concern inherent in the review sessions was that Indian values and heritage be recognized and respected by the college community as well as the society as a whole. To the extent that this is not done, Indians have an identity crisis, wondering who they are and where they fit in and why they as persons are regarded with disdain and whether or not to capitulate. One interviewer spoke with fervor about the fact that a college administration was about to tear down the original college building, one built by Indians and for Indians. The building as a building did not matter so much, but the symbolic act was devastating to the Indian psyche in that region. (Note: In March 1973, that building was burned to a shell, and arson was clearly indicated.)

As to social life on campuses, there were varied responses. Several noted that the movies and the bars constituted the available "social life." Another pointed out that "sticking together" in all activities was their social life. Another more optimistically noted that going on ecology trips or to Mexican dances should also be counted as social life. On another campus, a few Indians were in sororities and fraternities, but at another location it was considered impossible--although permissible--to join such groups because of cost and redneck attitudes.

On the other hand, many students were generally satisfied with their institutions, in the sense that their academic and employment purposes were being met by such attendance. In addition, their financial needs were also being met.

A frequent topic of discussion was financial aid in its various forms, with emphasis on work-study programs. As previously noted, this whole area was treated as one with "special services." Within this context, it was suggested that "special services" for Indians seems more or less tolerated on the campuses represented, but with little evidence of any real commitment by the college. Moreover, students felt that the administrative personnel of the colleges were generally distant and "white-oriented."

Nevertheless, (as discussed at one of the review sessions) students in general indicated their genuine appreciation for work-study opportunities and the availability of other forms of financial aid. As one noted, "We're learning and working and getting paid all at the same time and it's sort of a good arrangement." Another remarked that "most of the Indian kids who want to can get jobs" (at a given institution), and indicated that loans and scholarships were fairly easy to arrange. At the same time, there were a few gripes about the uncertainty of when financial aid would be available in relation to registration and semester schedules.

And finally, in a very telling comment, one interviewer acknowledged that through such financial-aid programs Indian students had become "money-liberated," dependent upon the new opportunities available from outside their own direct resources. He was afraid that this would make them different people, might threaten the loyalties to tribes and Indian heritage. Thus he viewed even the concept of financial aid as a major factor in the identity crisis.

In one review session the question of Indian operation of Special Services came up (programs just for Indians). One interviewer quickly responded, "I say all-Indians will help better." Another, however, recalled his own involvement in an Upward Bound project that was half Indian and half white, with a few Chicanos, and thoughtfully remarked, "I don't know; I guess it's administered."

White Interviewers' Review Sessions

Grade and High School. Among the poor white students, education for those from small rural public schools, which the majority of the group had attended, was not as adequate as for students from suburban or affluent neighborhood schools. A major concern was that the small schools did not stress the basic skills and knowledge required in college. Students indicated, for example, that there was emphasis on the learning of grammar, while in college emphasis was upon writing. Students thought their schools should stress writing skills more than grammatical structure. The discrepancy between course emphases in high school and college concerned them. Instruction at the high school level doesn't seem relevant to that at the college level. The debates among the student interviewers suggest a difference in the quality of instruction and teacher interest between schools in poor areas and those in affluent neighborhoods.

Evaluations of high school guidance counselors were mixed: One student said that they ". . . give no push to poor students to pursue college careers." Some felt that because counselors have and convey a low expectation for poor students, it is difficult to learn about college and any special programs or aid that might facilitate admission and academic survival. Others thought that the guidance counselor had been their prime champion in attaining college admission.

The College Experience. The major obstacle for the poor white student, the interviewers feel, is cost of college. This factor and the consequent restrictions on their social life cause them considerable frustration. Reactions to the college experience varied as a function of prevailing costs. The poor student on a rich-boy campus is discriminated against and ostracized. One student from a high cost private institution cited incidents where students from affluent families who got arrested for drug matters were bailed out to college officials, while a poor student under the same circumstances was rebuked for disparaging the reputation of the school. Other campuses were defended as environments where "everyone there is just like everyone else."

Many interviewers felt that students in special programs are treated differently from the regular students. In some cases, the only reason for the presence of poor students on campus is the institution's need for federal funds. At one school, students were separated from regular students under the pretense that they lacked basic skills. The school labeled them "creative" individuals, but they were placed in low grade-level courses. The term "creativity" became synonymous with "low ability," and the students openly rebelled against the demeaning features of the program.

In many instances, directors of special programs were felt to have little influence with college officials in terms of making any difference in the lives of program students. Some interviewers felt that the money spent on the special program should be in the form of a direct grant for tuition, room, and board, thus allowing the student to carve out his own college existence. Even so, they noted, there would still on many campuses be a noticeable difference in the life styles of poor versus wealthy students. In some schools, the poor student is recruited from the local area as a commuter and in no way can approximate the residential campus life of the more affluent students.

Poor white, like other minority students, feel that differences in their reception at various schools may frequently be attributed to the atmosphere created by a key college official. If a college president, for example, encourages the faculty to take a personal interest in students, they say, then the efforts of minority students are supported. One school was defended staunchly for the way its faculty and administration were highly supportive of all students. In this instance, faculty and students ate together and lived in common buildings.

In summary: in the group review sessions, the common bond of poor students in poverty origin emerges more clearly. Also notable was the clear split observed on almost every issue except financial aid: where one student felt his campus climate hostile and punishing, another defended his as egalitarian and rewarding; where one criticized teachers or counselors, others supported them. This would suggest that where the poor white student is not stigmatized by membership in a low-status program, where his financial limitations do not restrict or punish him in the available social outlets, and where institutional elitism is associated with intellectual rather than financial affluence, he becomes like any other majority student.

J. Summary

Similarities and Differences among the Disadvantaged

The physically handicapped students differ in several important respects from the ethnic subgroups. Their problems are not those of the poor; their academic disadvantage comes from different causes; and they have no minority culture with which to identify. They treasure and feel the need for associations with nondisabled peers, but most are markedly unconcerned, compared with the others, about social issues. They see a real need for removal or easement of physical barriers and substitute avenues for achievement to allow themselves as nearly normal an exposure to academic and campus life as possible. They desire work-study experiences as a test and preparation for work role demands in addition to specialized vocational guidance and placement. Their urgent quest is for selfhood through independence and vocational competence.

The other subgroups have at least one major common denominator in their poverty origins. These problems afflict the poor in college: hidden costs that threaten continuing in college and bureaucracy in the administration of financial aid that can signal the same kinds of threats a capricious depression economy can impose on a person marginally employed. Money is needed not only to pay for tuition and living expenses, but also to allow a minimum sample of the nonacademic aspects of college life.

Although students were concerned about paying back loans, they rarely, if ever, complained about work-study, except to say that the work assignments were frequently trivial in nature, too little attempt was made to match a student with a meaningful job, and work hours were too short. Even though some students in each subgroup mentioned that working often interfered with studies, they demanded longer work hours in order to earn more money.

After financial considerations, the most frequent common need appeared to be informational resources. The interviewers were impressed with how little they found their peers to know about special precollege or college facilitating services. They were very concerned about those students who never stumbled upon the bridge program between high school and college or who, once in college, were ignorant of available special resources. It is possible that the traditional educational system is screening away the target group from full and productive interaction in it or that in the view of large numbers of poor and minority students, there are few available programs. Since relatively few students in each subgroup reported participating in the Special Services Program or any special supportive services, it might be concluded that far too few college programs exist.

Most of the college students tended to be pragmatically oriented. In addition, majors in the four-year programs carried a strong social service emphasis. The racial minority students had a strong sense of ethnic identity, and one of their major ambitions is to return to their people and "help."

Their focus was not so much on their own identity as a leader as on their potential contribution to the identity and welfare of their people. Few appeared particularly introspective; their focus was outward. Their concern is with people, not things; they dealt in realities rather than in abstractions.

The differences among the various categories of disadvantaged students were also striking. Note has already been taken of the physically disabled. The group next most unlike the others was the poor white. Those caught in the net of the interview sample had, in frequent contrast with the racial and ethnic minorities, histories of high achievement and leadership success in their secondary schools. This seems to suggest that, on the whole, the poor white who shows up in college is one who has found school an avenue for growth, development, and status, rather than one who has been found by special search, intervention, and creation of opportunity for him. Once on campus, he has more to lose than to gain by identifying with his particular subgroup, and he can become invisible among the majority. He is there as a function of his promise rather than as a benefactor of new forces aimed at redressing a century of wrongs. If he fails, it will be because he didn't have what it takes, rather than because he has been discriminated against.

The fact that most poor whites found in college come from a history of scholastic success suggests the possibility that the hard core poor white minority, those who experience early difficulty and conflict with the system, are not so frequently reached by current federal efforts as are the more distinguishable minorities. But equally important, it suggests that the poor white is living something of the Horatio Alger American dream, and is not so susceptible to the hazard of constant perception of imminent failure because of ugly but pervasive societal and majority cultural forces. He may press for the money he needs, but is less likely to join forces with others and attack the system. Assimilation, no dirty word for him, is his way out.

The ethnic minorities are attracted to joining with others like themselves, toward establishing and maintaining an ethnic identity, pride, power, and solidarity against aggressors. The world of predominantly white colleges with their dress, food, language, values, modes of social expression--and perhaps in the characteristic kinds of behavior sought in class by the faculty--is indeed new, alien, and not necessarily desirable. The dilemma to join it or resist it seems best resolved by resisting it or by establishing an ethnic beachhead in its center until students gain the sense of identity and courage to deal with it as individuals. To do otherwise is to remain a beleaguered captive of the prejudicial system.

The ethnic minorities seem to differ only in the stage of development of strategies for combating discrimination and oppression or for excluding the white world by developing their own world or community. A first stage may be a growing awareness of the value of standing together in a circle and looking in a variety of directions. A second stage may be the bonding of that circle into a hoop of steel. A third stage may be its convergence against an available target. A fourth stage may be the battle campaign itself, where victory or defeat is sustained, and power bases among the enemy camp are gradually established. If this analogy is roughly correct, the blacks with their earlier start may be said to be at stage 4, the Chicanos at stage 3, and the native Americans at the end of stage 1 but moving rapidly into stage 2. Other minorities are harder to place.

As noted in the beginning of this chapter, a few Filipino and Chinese students participated in this study. The Filipino interviewers described themselves as the "minority of the minorities." Nevertheless, they would like to be viewed as a distinct and separate cultural group. They claimed Filipinos are usually bypassed when it comes to college admissions. "They are expected to have high grades and high college entrance scores," one student said. Typically, however, their high school education is not up to expectation. Similarly, when they are classified as "other," they are an obscure, unknown group, and this causes serious problems.

The Chinese interviewers asserted that the usual story of the successful, extremely capable Chinese is a myth that causes serious problems for many poor Chinese people. Those in the West, in particular, they said, get little help from anyone. The few who get financial assistance to college are the exceptions who would probably make it anyway. There are those in significant numbers in dire need who are overlooked and discouraged even from considering college.

Precollege Programs

Despite the numbers of the nation's poor affected by such programs as Talent Search or Upward Bound, the disadvantaged students interviewed had seldom participated in special precollege programs. Those who did considered them valuable. They praised them for exposing students to college campuses and briefly to college life, for helping to bridge the gap between college and high school, and for providing, through interpersonal forces, the critical basis for faith in self and an aspiration for higher education. Unfortunately, according to the consistent comments of students who knew about them, the programs do not reach enough students and their curricula could be more rigorous and should be expanded. Students suggested that these programs should be available on many more campuses.

Very few students reported participating in the Special Services Programs. While this is in part attributable to sampling, it must be remembered that since the establishment of the program in 1970, about 200 institutions have operated Special Services projects, and that the sample of colleges where students were interviewed was overweighted in favor of Special Services institutions. Counseling and tutoring, as key elements of these programs, were considered tremendously valuable by all the disadvantaged students. Some argued that the programs should be more widespread on campuses and that they should also be a more integral part of the campus and the curriculum.

Some interviewers in the review sessions insisted that where the special programs have a high profile and where the institution emphasizes intellectual elitism, the support programs have a stigma that may hurt students' chances to compete. Strictly remedial efforts, they said, may be necessary to alleviate weaknesses, but the students nevertheless resented the apparent fact that participation in these programs frequently marked them as prospective failures.

Frequent distress over academic difficulties prior to or in college was noticeably absent; instead (and particularly in high school), instructors seemed relatively dull and sterile, and regular guidance counselors were infrequently, if ever, considered helpful. College faculty were good, bad, or indifferent; administrators were distant and unknown. That each racial minority group made a strong plea for ethnic, minority faculty members, administrators, counselors, and staff must be underscored.

The greatest impact of special programs and of minority students on the colleges of today may be the fact that they are there. Special programs are seldom full-fledged and reputable parts of the total college scene; they are separate parts, set off for students who "are not really up to par for college." To the extent that a student is identified with such a program, he can be isolated from his peers and faculty. If he is not a participant in a special program, he is viewed as a regular college student. When he is a racial or ethnic minority group member, he takes on in traditionally white colleges other pressures from the majority-oriented college experience. These pressures are manifested in the academic and social life; they tend to permeate the total campus through a paternal or racist facade.

In the traditionally black colleges, the same isolated existence of special programs mentioned above can be found where special efforts have not been made to integrate them into the total campus fabric. In the too infrequent instances where they are integrated, the program is more warmly received.

Overall, a great deal seems to depend on the basic philosophy of the college. In traditional, old-line institutions where minority, disadvantaged students are new elements in the campus population, where the emphasis is on "come and get it if you're good enough," the students have tremendous problems. In the newer open-door institutions, or where the instructional philosophy also places honest stress on meeting the student where he is, students have fewer anxieties and problems. It is readily apparent from the witness of some students that teaching them can be viewed as a challenge rather than a task beneath the dignity of the institution or the faculty.

From the students' report, traditional colleges dating back prior to World War II or before seem to have changed very little. The degree of integration and full acceptance of minority students, regardless of disability or disadvantagement, into the total fabric of the college varies from campus to campus. From the students' point of view, there is almost no college where the students have an unequivocal feeling of belonging. (This is probably not true of black students in black colleges or poor white students who are performing satisfactorily.) This feeling of being different seems to be ever present and colors every activity and experience the minority student has in college. Yet the stature of these new students is growing.

Some of those involved in the interviews were highly independent, and in spite of the pressures, they were responding enthusiastically to their new opportunities. Their presence should continue to grow and to be felt.

Recommendations Made by Students

The most frequent and strongest explicit student recommendations concerned the amount and increased availability of financial aid, and student centered policies and procedures for dispersing and monitoring it. The financial pinch is very real and seldom did students not have a tale to tell of financial difficulties because of hidden costs, inadequate guidance, or college-centered administration of aid programs. Students applauded work-study but asked for more meaningful work experiences.

The second most frequent and explicit recommendation was that there should be more creative, vigorous, and pervasive efforts to reach target high school populations with factual information about college opportunities. This was often coupled with a request for expansion and more honest recruitment of minority and other disadvantaged students. It was also recommended that such expansion and recruitment be extended to the campuses for some activity more forceful than a brief session within an orientation program. The main thrust of this kind of activity would be to make students continuously aware of college resources.

The third general recommendation was more subtle. Since on many campuses disadvantaged students and their special mentors are not of and accepted by the system, there needs to be pervasive and high level effort at federal, state, and particularly institutional levels to find ways these students can interface with the system as regular citizens. Students see several factors as significant in moving toward this goal: (1) an increase in their numbers on the nation's campuses, (2) a more sensitive and democratic administration, (3) the provision for ethnic rallying points and leaders, (4) a reasonable and systematic opportunity to dip into their own histories and heritages, and (5) the opportunity constantly to receive pragmatic instruction toward acquiring capabilities that they may later use to sustain themselves in the larger society as productive members.

CHAPTER 8

The Special Services Programs in Operation: A Report of Site Visits to Colleges and Universities[1]

A. Introduction

An important aspect of the Study of Special Services Programs for Disadvantaged Students in Higher Education consisted of on-site visits to a range of colleges and universities with Special Services Programs throughout the United States. This sample, as described in Chapter 3, included colleges with large multi-ethnic student bodies, private and public four-year and two-year colleges, small selective and nonselective colleges, public selective and nonselective colleges, public community colleges, denominational colleges, colleges with and without special programs to serve different ethnic constituencies, or special programs for the physically handicapped. Care was taken to assure an even geographical distribution of colleges.

B. Purposes and Procedures

However rich the empirical survey data reported heretofore may be, it was felt that some critical insights into subtle factors affecting the functioning of the program (including the political, social, and educational climate at the institution) could only be gained by on-the-scene visits by specialists knowledgeable in both the functioning of higher education institutions and in the problems of minorities.

The purposes of the site visits, as noted in Chapter 3, were three-fold:

1. to provide in-depth, corroborative empirical support for the diversity of perceptions and data revealed in the institutional survey, the student survey questionnaire, and the student interview;

2. to compare the institutional personnel and student perceptions of the university environment as it shapes the behavior and expectations of disadvantaged students; and

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[1] The principal author of this chapter is Dr. Howard Boozer, formerly an Educational Specialist with RCA and formerly Director of the North Carolina Board of Higher Education. He is now Executive Director of the South Carolina Commission on Higher Education. An essay, prompted by the experience of serving as task director for the site visits, and as a site visitor and reviewer of all site visit reports, has been published separately by ETS as Project Report 73-15, under the authorship of James H. Brewer (now deceased).

3. to examine critically the operation (and perceptions of that operation) of the program for disadvantaged students and the extent to which it is an integral part of the university administration.

Thirty site visitors, consisting of a group of multi-ethnic specialists in higher education, and usually working in pairs, spent an average of four man-days at each of 31 institutions. Discussions were held with individuals ranging from the president to disadvantaged and regular students. Particular effort was made to talk with key people involved in special support services programs, but also to observe carefully the institutional contexts in which they operated.

The report that follows is drawn from careful study of the site visitors' reports by the ETS research staff and two consultants (both historians) with long multi-institution experience in higher education--one, the director of the Afro-American Studies Program at a major state university, and the other a former director of a state board of higher education. The conclusions and recommendations are not drawn from systematic analysis of data, of demonstrable reliability, but from an attempt to understand and explain on logical grounds what was found, and to interpret the observed experiences with the Special Programs against a broader experience with institutions of higher education. Criteria for effective functioning of programs are not drawn from observed and documented success patterns of students, but from impressions as to the degree to which the program is understood, entrenched, and accepted, and from the judgments of those educators who work with or around the programs. Thus, the material is to a large extent subjective, and should be considered thoughtfully and cautiously.

C. What the Site Visitors Found

The 1971 Program Manual for the Special Services Programs provided by the Division of Student Assistance, USOE, includes information and guidance with respect to the role of project directors and staff (counselors, tutors, student employees, and so forth), retention of students, and related matters. The project director, for example, should have a background which enables him to understand the problems and requests of the special services students. He should be a full-time director if the project is funded for $40,000 or more annually or includes 50 or more students. Although his primary responsibility is to supervise the project, he should be in frequent contact with the students and have the full support of the faculty and administration of his institution. He should work closely with admissions and financial aid officers in identifying and meeting the needs of candidates who qualify for participation in Special Services Programs, and the project staff should be represented on the financial aid committee. The manual also deals with the need for curriculum modification for special services students, counseling and tutoring, faculty and campus involvement, the need for coordination with other related programs, research and evaluation, and other matters.[2]

The site visitors, as expected, found great variations among the institutions. These variations were as great among institutions participating in Special Services Programs funded by the Division of Student Assistance of the U. S. Office of Education as among nonparticipating institutions. The major findings, with anecdotal elaboration from the site visit reports (each quotation relates to a different institution), are given in the following sections of this chapter.

1. Program Directors

a. It would seem safe to state that a program is not likely to be better than its director; the reports of the site visitors tend to bear this out. In several cases, however, program directors who were perceived as excellent were not effective because of lack of administrative support, poor communications with the administration, or because the project was not in the mainstream of the institution's educational program:

> The program director appears capable, bright, devoted, and energetic. He is also most discouraged as to his powerlessness to make progressive changes with experience, because the creator of the program can only feel his original ideas were and are the best. Thus, the creator of the program controls--with his power base the President--and the program director paints unhappily by numbers.... I predict his early resignation--for his insights were sharp, and his dedication as real as his quiet frustration. He obviously enjoys the support of his staff.

> The full-time director (white), who is leaving, is considered by students and administration alike as being dedicated to his job as well as to his charges. He has been able to establish close relationships with his students, most of whom are black. He is respected by his two black counselors as a caring, effective person. There is no doubt that the program has helped students through the transition between inner city high schools and the institution. But communication with the administration has been less than adequate. The Deans and President are unanimous in agreeing that, in the future, the program director must be an integral member of the University community. There is also consensus that the director should be black, since most of the students served by the program are black.

b. Clear control of budget by the program director appears to be associated with effectiveness of program. Some excellent program directors who were not as effective as would be hoped for did not have control of their program budgets. In other cases, it was clear that one of the factors contributing to the effectiveness of directors was that the program had its own budget, controlled by the director:

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[2] Program Manual, November 1971, pp. 75-87.

> Most of the administrators feel that the director is 'his own man' and that because he is not concerned about tenure and promotions he is free to apply pressure at the highest levels in order to achieve his goals.... With respect to financial matters, the project has its own budget.... This money is controlled by the project and the funds are not distributed to the students through the financial aid office. This makes it possible for the project to provide funds directly to the students that they identify as having the greatest need. This is done through various projects designed to assist the disadvantaged students. One such project is tutorial....
>
> The director is a very effective black educator. He appears to be very dedicated to his students at all levels, personal as well as academic. He has complete control of his program including handling of budget. He can easily document his financial situation as all his records are close at hand and very well organized. When he speaks about the students in his program he speaks...with the greatest sense of respect and personal concern. He is very committed to his students and is personally involved with each and every one of them.... His time involvement with his students is, generally speaking, close to twenty-four hours a day--and he makes himself available to them night and day.

c. Important characteristics of the program director, as attested by those judged to have outstanding programs, include unquestioned and pervasive concern for disadvantaged students and their attainment of a higher education, skill in dealing with the administrative and faculty power structure, fairness in dealing with students and staff, fiscal responsibility, and administrative skill in general. In no instance was an outstanding program seen by the site visitors as the result of technical skill of a program director as an educational support specialist (e.g., a specialist in remedial reading or a professional counseling psychologist); such special services are generally structured as a staff responsibility. Exhibit "A" in the category of outstanding program directors directed a most successful program, had the full support of administrators, faculty and students, and was clearly in the mainstream of the institution:

> As you will see, this is a project designed primarily to encourage students to pursue a college education and to provide the ways and means for them to stay in good standing at the university. It gets involved in most of the other minority activities and it is the key to the successful expansion of services to disadvantaged students. The director is truly an outstanding individual. He is a person who possesses the requisite balance of militant zeal for the cause of minority students and understanding of what is possible.

> He is convinced of the need of a college education for many more minority students and utilizes all resources to make this possible. He is a charismatic individual who has sold the program to the University administration and acts in a way that makes it possible for them to deal with him confidently and at the same time is credible to students from the various minorities that participate in the project. Blacks, Native Americans, Chicanos and whites, all speak with affection about the achievements of the director. They know that they can come to him with a problem and that some satisfactory resolution will be provided. All of the administrators, from the president down, with whom I talked have a high regard for his talents and a great respect.... He seems not to be an unreasonable person and is aware of what can be achieved and what cannot and operates under those parameters.... With respect to the minority programs [a student who was interviewed] indicated that most of what is good in the eyes of the minority students is the result of the project and its director.... In all cases, the administration extolled the effectiveness of the project and they showered the brightest encomiums on the director.

d. There were examples of other program directors who were obviously capable, but who were not effective in some crucial tasks, for various reasons:

> The program is aggressively directed by an able, energetic and highly verbal black educator. He devotes his time to the black program, leaving programs [for several other minority groups represented] to other staff members who are designated as coordinators. The program is active, forceful, aggressive; there has been a well-developed 'Black House,' and much community interning in addition to the usual counseling and tutoring. The director's position and status seem secure. He gains added power by his speech-making ability and can be very persuasive in faculty meetings.... Strong prior inroads by blacks make it well nigh impossible for any other minority to feel comfortable and wanted. The project director, in addition to being incapable of maintaining peace and a sense of fairness with sub-directors, had obviously struck out as a budget officer. Signing off on invoices was not his interest or forte and as a result funds were not accessible to sub-directors. While the portion of the program for students of the director's ethnic background was impressive, that portion for students of other ethnic backgrounds was a disaster, with the coordinator for one segment resigning the day the site visitor appeared....

> The director of the program appears to be the 'angry young man' and an astute observer of political and social phenomena related to higher education. He claims that moral and educational objectives are not important, but rather money and power are the determinants in higher education.... In describing the general success of the program, he indicated that it was doing

> quite well. Over a three-year period the drop-out rate compares favorably with the attrition rate of non-disadvantaged students. [Another administrator interviewed] felt that this person was too busy with too many activities to be effective as an administrator. He pointed out that this individual was involved as an activist in the ethnic community, was administering the Special Services Porgram and [was involved in at least two other major, time-consuming activities].

2. Administrators

a. Key administrators who are genuinely concerned about institutional responsibility and role with disadvantaged students have frequently been the prime movers in initiating programs, and in guaranteeing that Special Services Programs achieve status and momentum on campus.

> The first response to grievances expressed by minority students came from student personnel although the financial aid office was also involved. An important person was the Associate Dean of Arts and Sciences who was able to get the academic people involved for the first time last summer.... [This Dean] 'hand-selected' certain volunteer faculty who 'were very capable in working with minority students,' has been deeply involved in the conception and implementation of special programs for minority students, and has championed their cause within the University and community....

> The Vice President served as the institutional representative for the site visitors. He pushed the initial proposal for a Special Services Program, just as he did for [two earlier programs]. He is also responsible for the operation of the Special Services Program [the project director reports to him].

b. Some programs suffer because of lack of support or loss of interest by key administrators. At some of the institutions the administrators were generally not well informed about the Special Services Program or appeared to be out of touch with the problems and concerns of disadvantaged students. This was more likely to be true where the project director was ineffective or lacked good communications with the administration and where programs for disadvantaged students were not in the mainstream:

> With the exception of the President and perhaps one other key administrator, the administrators are not well informed about the program--as if it proceeds without their attention or only occasional thought. For example, it was easy to get one Vice President to directly reverse a statement of opinion by stating the reverse as generally true. Other administrators (e.g., the Dean of Student Affairs) view the program as a problem.

> The President feels that minority people are well accepted on campus. 'The poor feel at home because there are so many

> students in the same situation.' He explained the lack of minority dissent on campus by saying that 'when you're trying to make a living and go to school you don't get so idealistic that you think you can solve the problems on the moon.' He obviously does not see racism as being part of the everyday experience of students on his campus. He indicated that he felt most student protests were instigated by outside agitators. I see this as part of a general trend on this campus to ignore internal problems (reflecting problems of the society at large) in an effort to create a vacuum in which to work toward the idealized goal of developing the 'intellectual man.' When asked whether the minority students were well integrated into campus life, the President drew this analogy to explain the situation: 'If you speak French rather than English, you will look for a Frenchman.' Naturally this explanation precludes dealing with the problem.... [Another administrator stated his view that], with respect to the treatment of minorities, most administrators do not extend themselves.

c. In some instances where administrations are most supportive, that support can cause problems with other segments of the campus. The administration needs the skill to be supportive of the Special Services Program effort without vitiating other institutional objectives.

> The administration seems to be moving toward more integration of minorities. There are black and Latin faculty and staff members. The newly appointed associate chancellor is a popular black woman faculty member.... There has been a major effort by program directors to communicate with faculty. But some faculty members are seen as rigid and unsympathetic. Administration received better grades from black staff members.

It should be noted that there are a variety of reasons why key administrators, particularly the Presidents, may look with favor on Special Services Programs. Some may see the prospect of federal assistance a welcome bit of relief from financial problems. Others may be anxious to avoid difficulties from civil rights compliance requests. Still others may want to see a more effective mix of students and faculty, as a capsule of contemporary American problems. A few, indeed, are concerned that their institution meet effectively the challenge imposed by a potential applicant market that does not represent the more traditional kind of college student. The more effective programs or institutional settings tended to be those where initial and continuing administrative support was based on perception of student need and compatible institutional objectives, rather than on public face considerations or easement of general financial problems.

3. Faculty Members

a. The Special Services Program or similar efforts have, in a number of instances, appeared responsible for changing faculty attitudes toward the disadvantaged student, although this is not immediate, but takes place over time. Faculty members in many institutions at the outset were skeptical about or aggressively opposed to special programs for disadvantaged students, but in a number of cases their views have changed and they are now more supportive:

> The Vice President admitted having had reservations about accepting students who would meet the academically 'disadvantaged' definition applied in the Special Services Program. He was 'not alone,' he says, among faculty in initial opposition to the proposal. Now, however, he himself has made a '180 degree' change in attitude and knows of no hold-out among the faculty. There is no difficulty in getting faculty members for the 'preparatory courses.'
>
> The Special Services Program enjoys widespread support throughout the university including the faculty, although there has been a repeated expression of concern from the faculty about the loss of academic standards in such a program. The program has been able to demonstrate that with Special Services Programs those students admitted under flexible admissions standards have generally proved successful...as a result of this success the faculty seems less concerned about the loss of standards.
>
> Faculty, administration and students, with few exceptions, tend to treat disadvantaged minority students just like everybody else. On the whole, the faculty supports the administration position but a few are offended by compensatory efforts. Those offended are mostly offspring of blue collar workers and the first of their families to attend college.... The President said that the administration has the most progressive attitude with faculty next and parents last.... The director of admissions said that students are way ahead in receptivity to minorities, the administration is next, and that the faculty is just recently emerging from considerable suspicion of the administration's attitude toward disadvantaged minority students and now supports its position.

b. In spite of the attitudinal change by faculty at some institutions, programs at other institutions are severely plagued by overt hostility from the faculty, who see the admission of disadvantaged students as a reversal of upward qualitative mobility by the college or their department, or even as an insult to their own scholarly standards and ideals.

> In addition, [the program director] felt that the curriculum had not responded to the needs of the minority students due to opposition from the faculty.
>
> Any hostility which may exist on campus toward minority students, the President felt, is most likely to come from disillusioned faculty members with high ideals who expect all of their students to be [outstanding]. They 'feel betrayed when you foist these handicapped people on them.'

In conclusion, the only negative statement concerning the college was that there was a small number of instructors who had rigid attitudes towards the disabilities of the bulk of the student body. These few faculty members are former military personnel who feel that the college should maintain a standard university program and that remedial instruction should be the province of the high school or other agencies.

This observer found it surprising that many assumed the largest problem that of convincing the freshman faculty that most students were worth their time and attention.

An increased faculty/staff orientation to minority student needs would improve the probability of success among their minority student population.

...some faculty members are seen as rigid and unsympathetic.

All administrators and faculty argue that no special academic treatment should be given black students, and they are expected to be responsible themselves for planning their own learning experiences within a framework of academic freedom. In reality, some supportive services are available and more are planned for next year.

4. Students

a. There is considerable variability in the ease and smoothness with which disadvantaged students are assimilated into the campus peer culture or with which they are accepted by the prevailing majority culture. Factors felt associated with this are sometimes the climate of the immediate community the college serves, a 'white back-lash,' majority student or faculty passivity or hostility, or segregation of disadvantaged students into a low-status special program.

Special programs for black, Latino, and Native American students following confrontations and demands were established for these minority groups in 1968, 1970, and 1971, respectively--in the spring of 1972 the President was waited upon by a committee claiming representation from 109 community groups which represented all community citizens except blacks, Latinos, Indians, and Jews. That committee has placed pressure on the University to establish other ethnic study programs.... All things considered, I found the efforts on the part of the University to serve disadvantaged students to be commendable. The University has been intentionally low-key in giving publicity to their efforts because of the traditionally conservative nature of the community and the questions raised by many of the white ethnic groups about the efforts being made in behalf of non-white minorities....

There is no great resistance to disadvantaged minority students anywhere on campus but students and their parents are more hostile than any other group. The most hostile persons are the parents of low income white students, angry because they believe that blacks are getting a free ride at the college while their own children must pay.... The greatest resistance to disadvantaged minority students can be found in the homes of low income white students. These students themselves often exhibit this resistance but less frequently than do their parents....

What is really needed in the University is a fundamental change in attitude of the majority white population toward blacks, Chicanos, and Native Americans. Until most people stop thinking of recruiting minorities only in terms of the football team, or of ethnic studies as extraneous, special programs at the University will have a limited effect.... If life on campus is to be relevant to black, Chicano, and Indian students more courses dealing with their cultures must be included in the curriculum.... If white students were exposed to teachings on other cultures, they would be more likely to have a healthy attitude toward Third World people.... The head of the black student organization noted that the students and faculty at best take a passive attitude toward the needs of black students. He found it difficult to point to just one area of discrimination because the inequality begins with the basic thinking of white faculty and students.... The leader of the Chicano student organization spoke for the most part of the difficulties Chicano students face because of the pervading attitudes of the majority population...he feels most of the student body does not care about Chicanos and Chicanos have not yet learned to speak out.

Many Chicano students described the college atmosphere as being very cold and hostile toward them. They stated that as Mexican-Americans they were segregated...and treated with contempt. In several instances, Chicanos had been strategically grouped in far-out corners of the class rooms, making them feel very embarrassed and isolated. In general, they felt very belittled and looked down upon by the Anglo administrators, faculty and students. Chicanos also felt that there was very little sensitivity toward them, and even less willingness or desire on the part of the Anglo administration or faculty to try to make the environment a healthier one.... The major problem with special programs at the college is that students feel a stigma attached to their participation. This feeling is both internalized and reinforced by their peers at the college.... Something must be done to assure that there is no stigma attached to being linked with special programs of this nature. This might be achieved were the emphasis not on the 'inferiority' of the culture from which the students come but rather an emphasis on the valuable contributions that culture can make to 'outsiders.'

b. Whatever the value or merit of having one Special Services Program serve several ethnic minorities on a given campus, the establishment and maintenance of a smooth multi-ethnic group program emerges as a particularly difficult accomplishment, one not frequently achieved.

> Strong split in the Special Services Program between black and all other minority leaders.... A first important generalization, otherwise widely verified, was that the major minority was an uneasy bedfellow with the other three minorities. The overall program suffered because of this.... Strong prior inroads by blacks make it well nigh impossible for any other minority to feel comfortable and wanted, whatever Special Services may do.

> The administration looks upon the Special Services Program as one program, but the blacks and Chicanos say there are two, one for the blacks and one for the Chicanos. According to both groups, each is run autonomously.... Nevertheless, they are run pretty well.... Each segment has its responsibility which results in less conflicts. On the other hand, there appears to be a kind of touchy atmosphere.... On many issues the blacks and Chicanos supported each other but still there appeared to be some dissension.

> Some disagreement developed among the three groups as to who the director [of a cultural and media center] would be.... Part of the problem was that directors of three other campus programs were all from one minority, and the other groups are rightfully saying 'Where are our ethnic people?'.... With minority staff recruiting generally minimal and therefore each new position highly visible, someone will be angry.... At this point there is an uneasy alliance among the three ethnic groups, but 'every three or four weeks someone really gets angry'.... They mentioned that a position has opened up and the black students want a black hired because they have no representive on University staff; Chicanos feel it should be filled by a Chicano because of the large Mexican-American population in the state; and the Indians want an Indian because of the high drop-out rate of Indian students. Tension among groups is high.

c. Many disadvantaged students need assistance and encouragement not normally provided with reference to completing the procedures required in the admission and matriculation process in colleges and universities:

> The counselors were interviewed and reported that 60 new disadvantaged students have been recruited for Fall 1972. But thus far only 15 have completed the necessary financial aid forms. Indeed, the filling-in of required papers is one of the major stumbling blocks to enrollment of disadvantaged students at this and all other institutions visited.

> Other problems mentioned concerning the disadvantaged student included the additional follow-up required to get them to take the required entrance examination and to submit their high school transcripts.

d. Although many--in fact, most--openly favor separateness, with much sentiment for minority lounges, cultural centers, and other resources as refuges from the majority student body--or, at least, attempt vigorously to retain ethnic identity--there are also institutions, such as those referred to below, where lack of social integration is viewed by majority culture members as a factor that mitigates against the success of special programs:

> The administration seems to be moving toward more integration of minorities. There are black and Latin faculty and staff members. ...This year, for the first time, majors have been offered in black and Latin American studies. In addition to these two minority groups, there are organized white minority groups (i.e., Lithuanians, Slavs, and Greeks).... Despite determined efforts on the part of the Special Services Program staff to treat the program as one for all disadvantaged students without regard to race...there is a distinct ethnic identity to the program on campus.... Aside from the Special Services students, the staff and students agree that there is a general feeling of alienation on the part of many students.... Financing a college education is the single most cited personal problem.... The very fact that most students, black, brown, and white, are in the same bind of making considerable sacrifices to get a college education gives an air of no-nonsense purposefulness to this University.
>
> The black students who feel alienated constitute the single most cohesive unit of disadvantaged students on campus. Not all black students are actually educationally or economically disadvantaged, but most receive some form of financial aid. The middle class black students tend to integrate into the campus milieu, while the less advantaged black students stay together. There is a black table in the cafeteria. Although substantial numbers of white students can be classified as disadvantaged, since half of all students receive financial aid, they do not possess a sense of group solidarity.
>
> The President stated that the Special Services Program would be more successful with more financing, counseling, and social integration.... A student interviewed was in favor of a special program to get more minorities on campus and thought it to be good for the institution and for the students. He also felt that minority students separate themselves, and that life on campus might be easier for them if they did not do so. Two Deans interviewed also felt success depended on how well the students blended in with the regular academic life.

5. Remedial Courses

a. The need for remedial programs for educationally disadvantaged students appears more likely to be recognized and stressed at those institutions where most students have inadequate preparation for college. For example:

> Eighty percent of college freshmen here read below the ninth grade level.
>
> Treatment of students in need of 'remedial' education is an institution-wide problem, not simply a problem restricted to a small, identifiable, disadvantaged subgroup.... When 80-90 percent of its students meet the standard definition, we can only talk about the 'most disadvantaged'.... Family incomes for most...are at the poverty levels, secondary education has not prepared them for college, and they all need various levels of special assistance [financial or remedial help]. It seems an insult to be even reviewing their special programs....
>
> The common denominator is that most students (the administration estimated up to 95 percent) can be classified as educationally as well as economically disadvantaged.... A recent pilot assessment program for entering freshmen found an average reading level at about ninth grade and the mathematics level at about sixth grade....

b. Nevertheless, other institutions do not deny the need for remedial work; yet, where it is not a common feature for most students, it tends to acquire a sharply negative status, and is avoided, unless special incentive is provided to students.

> The President said that the lack of adequate secondary education is the most serious problem facing disadvantaged minority students at this institution. It was the view of the Director of Admissions that all disadvantaged students need supportive programs and that only 25 percent or fewer minority students could make it without these supports.... Pre-admission courses are the most successful feature of the special program at the college.
>
> When the Special Services Program was first initiated, a pre-college clinic was developed with special non-credit course offerings in language and mathematics. Students passing four courses were guaranteed admission without meeting other required criteria. The cost of the course, however, was considered a stumbling block to entry of many well motivated students. The Special Services Program was then developed to provide supportive services to students recruited during the academic year.
>
> The college operates two programs in which non-credit courses are provided. These are remedial language and mathematics programs; however, the use of the word 'remedial' is taboo. Many of the

> minority students enter with deficiencies in these areas but are reluctant to attend non-credit courses and frequently bypass them in spite of their deficiencies. Greater cooperation is obtained through Special Services but there is a need to make the program more acceptable.
>
> The General Studies program consists of basic courses for which students receive no credit toward a degree...some arrangement should be made whereby students who spend...time in the program may receive some type of credit.... I recommend some credit for the remedial courses now offered for non-credit.... One administrator interviewed saw the main problem as being no credit given toward a degree for courses taken in the General Studies program.... A counselor indicated that the General Studies program was good because it is of some help to the students, but that it was also bad because it gives students a second-class citizenship status in the college.... One of the problems encountered with General Studies is the need to convince parents that it is necessary for their children to take the General Studies courses. There is a bias against courses that do not have credit.
>
> Conversations with students confirmed the observations of the director of remedial programs that 'students seem happier under the present setup rather than taking courses for which they did not receive credit.' The new program and the support from Special Services have positively affected how the student views himself.
>
> The director of the Special Services Program stated that each student in the program must attend a three-semester hour course in Human Adjustment and Development. In addition, each student must attend one or more of four remedial or compensatory courses--in English, mathematics, science, or social studies.... While the semester hours earned in developmental courses cannot be used to meet graduation requirements for 124 hours, the grades earned do contribute to the grade point average required for graduation.

c. Although relatively few institutions with programs for Native Americans were visited, comments from the site visitors or persons interviewed seemed relatively sterile. It would seem that the Native American presents a special challenge, probably because the severity of his problems and the forces that may motivate him to study in institutions of higher education are so poorly understood. Indian leaders, similarly, were noted in at least one instance to flounder when placed on the staff of a traditional college campus:

> Financial problems along with the lack of adequate remedial services seem to be the prime factors contributing to the lack of retention of Native Americans at this university.

> Indian students interviewed felt that minority students, once they were in the University, did not receive any special attention academically, and did not make use of the tutoring program.
>
> A deep frustration for the Native American coordinator was her inability, after repeated requests of the Admissions Office, to receive SAT scores for her students. 'We don't have them,' she was told. I then went over, asked the same question, and was given the same answer. I moved to the Institutional Research Office, however, and had the data ten minutes later. The coordinator felt it would have been a different story had I been an Indian. It may have been; still I wondered about her lack of persistence.

6. Tutoring and Counseling

a. Over and over again tutoring and counseling are emphasized in the site visit reports as the most important aspects of Special Services Programs. Yet, their place in the institutional program, and their perceived effectiveness, varies. For the counseling and tutoring provided by Special Services to be maximally effective, attention must be given to how these mesh with other counseling and tutoring afforded regular students, as well as to how effective they are in bolstering student achievement. Typical of positive comments are:

> All students felt that tutorial services, counseling, and off-campus experiences are extremely vital to their full utilization of the college experience.
>
> The regular counselor seems very grateful for cooperation received from the Special Services counselor in counseling with some of the non-Special Services students. The Special Services project staff and the regular counseling staff share the same suite of offices in the Administration Building.
>
> The Counseling Center provides good support services for the entire campus and coordinates their efforts closely with those of the other special programs on campus.... I was impressed by their willingness to cooperate and coordinate with other campus facilities without the feeling of having to conduct and maintain control over all counseling and support services.... The instructional support program includes tutoring, skill development and preparation to take the GED. While the students served by the project are principally minority students, they have generally good visibility on campus and include [minority] people in their corps of tutors and among their staff. The services which they offer have been so successful that non-minority students are coming in increasing numbers to the program for special assistance.
>
> The major strength of the program is in the peer counseling, peer tutoring, and the collective activities which also are peer protection for the disadvantaged.

> The project counselors reported that the college differs from most colleges in that counseling is not isolated from other activities. Counseling overlaps many programs.... They feel that many of their students would not be able to make it on any other campus, as they are not sophisticated enough to get through the maze of Special Services Programs on a large campus. Part of their counseling is to help students learn 'to walk the maze and read the signs'.... Students who transfer to other colleges still call them for advice and counseling.
>
> ...the leader of the black students thought the tutoring program of Special Services is good and essential because many minority students come to college handicapped by inferior educational backgrounds. The programs are aiming in the right direction in general but he believes the University could 'move about 85 times faster'.... The head of the Chicano students believed the tutoring is constructive because 'so many students have been pushed down' in their past experience with school and need the extra attention to succeed academically in college.... Minority administrators interviewed saw the supportive services as being sorely needed and very successful although lacking in funds and materials.

b. Tutoring and counseling of disadvantaged students on some campuses, however, are not in the mainstream or are in conflict with regular institutional programs:

> The University has an effective though stagnant program of counseling and tutoring, run by a dedicated group of humanists, who are largely ignored and unappreciated by the college mainstream.
>
> The project would be more successful with more financing, counseling, and social integration.... The Counseling Center is mostly removed from the Special Services Program, but the program is in need of larger counseling services.... The Special Services director was discouraged by the matriculation rate for special program students, which is much lower than for regular students.... An instructor suggested that tutoring and counseling would contribute a lot more to the success of the program than more careful selection. There has been some discussion between the Counseling Center and the President because it is felt that funds are being taken from the Center and reassigned to the project. As a result, efforts to improve access to the Center's services have precipitated negative reactions.... Funds had to be reassigned to help the special program, which might have generated anger among the faculty and others, which in turn could affect the quality of their work in the program for disadvantaged students.... It was clear that there is a tremendous amount of animosity and hostility to the Special Services Program because they do not rely on the Counseling Center. The whole thing works outside

> the Counseling Center...they 'have set up separate but certainly not equal facilities'...many of the students who have been accepted into the program have been 'programmed' for failure, according to one involved administrator.
>
> The services of the Counseling Center are available to all students, not just minority or disadvantaged...lack of communication between minority program directors and the Counseling Center has been a major problem.... In certain areas the Counseling Center has been highly successful, e.g., job placement and vocational advising. Its failure has been the inability to deal with minority students on a 'special level'; that is, the Center does not employ either a Chicano or a black counselor, nor do they have a woman on their staff, except in a secretarial capacity.

c. In many cases, funds for tutoring and counseling are felt to be inadequate; were additional funding available, it is these activities that program staff see as the prime candidates for increased activity.

> Two major themes came through in most of the interviews. The first is that the most critical aspects of the Special Services Programs are tutoring and counseling, and that is where the money and attention should be concentrated. The second is the need for better coordination between the special programs and the regular academic programs.... The tutoring is not well enough supported with money to provide enough tutors for the number of students who need them.... Turnover among tutors is another problem. There is not enough continuity in the program to make it effective.... The need for more effective counseling was stressed by the students but also by staff members interviewed.... The Special Services Program seems to depend almost entirely on its own limited and transient staff of counselors and has almost no contact with the regular University Counseling Center. Students we talked with seemed unaware that there was another place where they could get career counseling. This is an example of the lack of coordination that exists....
>
> For students entering their freshman year, the University established a summer program of transition. This summer program, essentially for minority students, is to improve their skill readiness for college.... Its success is admittedly minimal and lacks meaningful programmatic follow-through. Students need further assistance during the initial year. Their academic survival, consequently, depends on the degree of tutorial assistance secured. Beyond the summer program and an unstructured tutorial effort, minority students are academically on their own.... A big deficiency is noted in the area of year-long academic support services such as organized remedial courses, tutoring and counseling. Greater concentration in this area...would improve the probability of success among their minority student population.

> Special Services offer some tutoring assistance which is seen by the students as a successful endeavor. Limited funding has curtailed the availability of this service.... From time to time a course in English as a second language is available but should be regularly available.
>
> This institution is not funded for Special Services but has an Upward Bound program.... The University provides no remedial classes for any of its students, and makes no overt attempt to give special treatment to a student once he enters the University.... At present there are no other programs, either privately or publicly funded, with the express purpose of aiding minority or low-income students. The director of Upward Bound would like very much to see the establishment of a Special Services project, which would give further support in counseling and tutoring of students once they have entered the University on a full-time basis.
>
> The purpose of the Special Services Program is to retain the students that they serve. This is done through counseling, tutoring and, in some instances, providing small necessities such as books and materials.... Special Services needs more money for more personnel to run the program, facilities, and higher salaries to attract tutors from the different ethnic groups so that the students may better avail themselves of these services.

7. The Physically Handicapped

Programs for or special attention to the needs of physically handicapped students were not emphasized in the sample of institutions for the site visits. Nevertheless, the kinds of supportive services required by physically disabled students are markedly different from those required by other disadvantaged, and they seem a strange bedfellow in Special Services.

> While they have not provided any particular service to handicapped students, there is a handicapped counselor in the regular Counseling Center who works very closely with the state and who provides for the needs of those handicapped students who can be identified by institutional processes.
>
> In discussing the recruitment of disadvantaged students nothing was said about recruiting handicapped students.... Other projects were cited in which the college has been involved to facilitate the recruitment and retention of disadvantaged students--still no mention of the handicapped.
>
> Interviews with a number of students verified the effectiveness of the Special Services Program in keeping well motivated but academically inadequately prepared students in the University. Although the program serves only a few physically handicapped students, they too are very grateful for the program.

Unique program for crippled students. They have 60 or 70 physically handicapped students in the program. There is really no special program, no special money, no special consideration, all operations must be within the context of the University's programs. Project originated when it was realized that 99 percent of the facilities were completely inaccessible to people in wheelchairs. Partly because the campus is old, they've revised and remodeled so that now there are ramps up into the buildings and overpasses over streets and so forth.... They started recruiting by letting all the high schools in the state know that they had great facilities for handicapped people.... The only true University help is minor in recruiting, in preparation of publications, and in facilitating communications. A tremendous amount of volunteer help is used in this program.... They get extra personal counseling if they need it.... They get housing help in finding a house convenient to the University and their own situation, and roommate aid is arranged...recently successful in getting this roommate aid for crippled students designated as useful alternative service for draft purposes.... The director of this informal program believes there are a number of points that must be observed in a program of this kind. It must not be separate, it must be fully integrated with the rest of the University, it must have a strong full-time director who should be a handicapped person, on duty at all times to solve crises. It must have funds for capital expenditures on facilities. It must have strong communications with the network of the community. It must have specific faculty people paid to advise the physically handicapped academically and more intensive personal counseling in life style and sex problems.

Last but not least, the programs for the physically handicapped seem to be operated very well. This may be due, in part, to the fact that the program is under the direction of a physically disabled person who therefore is able to understand and relate to the needs and problems of physically disabled students.... This program and its director also have a good relationship with the administration. Since its existence, many ramps have been built on and around the campus for the convenience of students who are physically disabled. Their main problem, though, is finances. Because they do not have adequate finances they have had to cut back on personnel. This puts the program at a disadvantage because every year they serve more people. If the funds continue to be as tight then they will have to resort to refusing aid to students who are referred to them. Also, more money is needed for travel.... Another problem that bothers the director of the program is that he and his staff cannot recruit. He feels that if the program is to be totally administered properly, they should be allowed to recruit. Their students come to them by referrals from welfare workers, hospitals, therapy centers and from the State.

8. Coordination

Coordination of activities in Special Services Programs with related activities, or with the college program in general, is frequently seen by the site visitors as a major problem. Coordinating Special Services Programs with precedent programs such as Talent Search or Upward Bound, or to other support programs on campus, is not a natural function of their coexistence. Special efforts are needed to insure that these activities are mutually supportive.

> As a whole, there seems to be a variety of programs for the disadvantaged students, some of them well thought out and others lacking in specificity, but little coordination, the minimum of monitoring and, according to most people, no evaluation.... Aside from money, then, the need for coordination, research, monitoring, and evaluation seem to be most pressing and should be attended to immediately.

> The programs that serve the students are Talent Search, Upward Bound, and Special Services. Each program has a director and exists independently of the others. However, plans are being made for the three programs to come under one umbrella and one director.

> Its main problem is, of course, finance. Other problems are better coordination of all the programs, a need to mesh the Special Services Program more with the regular academic program, and some way to evaluate their program efficiently .... In summary, the overwhelming problems are (1) need for better counseling, career guidance, and tutoring, and (2) need for better coordination among the special programs for minority and poverty students and between the special programs and the regular University programs.

> The major problem at this college besides financial aid is space.... Another major need is for closer coordination of all components of the Special Services Program.

9. Minority Pressures

Student or community pressures have been, in many cases, the prime factor in initiating special programs for minority and disadvantaged students.

> It is my opinion that the University has undertaken several worthwhile activities which support the needs of minority students and provide special services to disadvantaged students. In almost every instance they did so under pressure from the community....

> Finally, the matter of the institution's interest and commitment to assisting disadvantaged students was discussed. It was noted that special programs for the disadvantaged were established only after disturbances in the ghetto, and were probably brought about by the pressures created by black and Chicano students on campus.... Officers and faculty were both pressured and made aware of the special needs and events around them. However, with the heightened awareness of these special needs, both faculty and officers seem to have become increasingly committed to the task of integrating such students into the college programs.
>
> The idea to create special programs, however, was not the University's own. Evident on campus at the same time was dissatisfaction among minority students in terms of recruitment, ethnic studies programs, and the number of minority faculty and staff at the University. The real impetus for developing special programs came from black, Chicano, and Native American students.
>
> The director of counseling stated that outside pressure influenced the University to start the Special Services Program in the first place.

10. Other Noteworthy Concerns

The need for finances and space (mentioned several times in the foregoing pages) was alluded to over and over in the site visit reports, the low status of special programs as reflected through inadequate facilities was reported, the need for bilingual programs or for courses in English as a second language was mentioned at several institutions, and the need for better record keeping and institutional data was highlighted. Evaluation research, even simple social bookkeeping on attrition rates, is conspicuously absent.

> The major problem is space. Facilities are desperately needed. All of the facilities for the Special Services Programs are too small.
>
> Two floors up at one end of a long narrow hall are the headquarters of...Special Services.... The offices and study rooms for Special Services are furnished with cast-offs from the dorms; the secretaries type on borrowed typewriters in cramped quarters. The programs have no possibility of attractiveness under these conditions, nor is there any sense of permanency.... The head of the black student organization stated that black students do not feel the University administration takes special programs seriously. Referring to an example of that carelessness, he said, 'We were led to believe that we could really do something with it. As it turned out, furniture and materials had to be scraped up and all are second-hand.' This has happened with all special programs, he believes, so that they have no attractiveness and a shabby, second-class status. He feels the programs are even 'treated as a disease' by the

> way they are 'tossed around' from one part of the University to another.... Another student interviewed said that he had heard that the special programs would not be around in a couple of years and stated, 'If you don't believe it, look at how Special Services have been tossed around.'
>
> It is interesting to note that even though Spanish-speaking students make up the largest minority group on campus, there are no bilingual programs teaching English as a second language, and there are zero Hispanic history or cultural courses. There are zero subjects taught at this College that relate to Spanish-speaking Americans!
>
> No one with whom we spoke (including the President, the Director of Institutional Studies, the Financial Aid Officer) indicated that they were 'informed' on questions such as the attrition rates among various subgroups of students.... What we may term 'social bookkeeping' is notable by its absence. There is great need for procedures which will enable institutions to become better informed (with better data) about what their various programs and procedures are accomplishing. So much of what is done with the best of intent may be done with relatively little impact.... In practice, this means that added attention should be paid directly to programs designed to establish an institutional research function on every college campus. This is not a new problem--various programs of government, educational agencies and foundations have been addressed to the improvement of institutional research on college campuses. However, the task remains unfinished.

D. The Contexts in Which Special Programs Function

The excerpts from site visitor's reports which have been quoted at length in the preceding section suggest implicitly, and sometimes explicitly, the range of contexts in which special programs for disadvantaged students operate. They also suggest, sometimes directly and sometimes only by inference, the ingredients which in combination make it possible for a program to be quite successful or condemn it to marginal success or failure.

It is clear from the site visitor's reports that institutional commitment, meaning a central, pervasive, and positive concern for disadvantaged students and their success by the administration and faculty, varies considerably among the colleges. No particular group of institutions can be labeled as being uncommitted--at some public institutions and some private institutions, some large and some small, a lack of commitment was noted. As a tendency, however, more commitment was found in the less selective, open-door, and traditionally black colleges, with less found at more selective, historically white institutions. A strong generalization on this point would be inappropriate, however, as there are notable exceptions to all of the above statements.

On the whole, students and administrators are more supportive of special services than are faculty members. In some cases students (and their parents) are negative, especially first-generation college students from blue-collar families. Negative faculty members from blue-collar families were also noted, along with "elitist" faculty (those who view higher education as appropriate only for the most academically able) who judge unusual support services as inappropriate in a college or university. It was noted on several campuses, however, that many faculty members who were initially skeptical or hostile are now supportive, due in several cases cited to the record of success achieved by students in the special programs. Some administrators who expressed support were thought by students, especially minority students, to be nonsupportive in fact.

At some colleges programs for disadvantaged students are fully integrated into the mainstream of the institution's educational programs--and the most successful programs are to be found in such situations. Where the students in special programs are set apart the programs and students often suffer. Terms such as "disadvantaged" and "remedial" are viewed by many students and Special Services staff with disfavor.

At many of the institutions, however, students in special programs are not integrated well into the college's regular learning and social environment. Sometimes this is due to institutional or administrative policy, sometimes from the stance of the project director and his staff, and sometimes from the preferences of students. In fact, it was noted in several instances that upper- or middle-class minority students tend to identify with the mainstream, while economically disadvantaged minority students tend to cling together; thus, student pressures are not always drawn along ethnic group lines. Special academic programs (ethnic studies of various sorts) are provided at many institutions with both positive and negative effects--while they make the curriculum more relevant and may reinforce the dignity and identity of minority students (i.e., Blacks, Chicanos, Native Americans, and so forth), they also reinforce separateness which some applaud and some decry. The same may be said for special lounges, houses, and cultural centers. A purpose of such facilities is to provide a haven for many minority students from what they perceive to be majority pressures, and this too has both its negative and positive features. A dilemma is created if it is a goal to integrate disadvantaged students into the institutional social and intellectual environment when at the same time academic or social programs which tend to underscore separateness are created for such students, usually at their request.

Special programs for disadvantaged students, whether federally funded or not, have resulted in significant changes at most colleges--such changes are especially apparent in modified or new curricula (e.g., ethnic studies) and in more effective tutoring and counseling programs. For most of the disadvantaged students who succeed in college, adequate financial aid and the special tutoring and counseling programs appear to be generally the most important. Conversely, for those who drop out the reasons are most often due to academic, social, or financial difficulties, singly or in combination. The factors that seem to be most responsible for attrition of disadvantaged students vary from campus to campus, but generally fall in the above-noted categories; they also result, however, from student perceptions of rejection or lack of acceptance by other students or by faculty members or administrators.

In some colleges and universities, perhaps most, disadvantaged students are made aware of the total institutional resources available to them for the various types of problems they encounter. There are campuses, on the other hand, in which such students do not know where to go for help or in which the special programs are so separate and discrete that broader institutional resources (e.g., the counseling center) are not made use of to best advantage.

There is need in special programs on many campuses for more space and better equipment and furnishings for the various aspects of the programs. Additional financial aid for disadvantaged students is the most cited need. If federal support were reduced or terminated all elements of the special programs would suffer; the most likely to be continued would probably be the new academic programs, and tutoring and counseling. With reduced federal support these functions would be weakened and increased federal support would strengthen the programs all around.

Many of the site visitors felt that there is a clear need for continuing and enlarged monitoring by the U.S. Office of Education. Qualities of programs and program staff vary, as do continued institutional receptivity and support; program directors, except in the few instances where they were drawn from the existing faculty or administrative mainstream, appeared to need and welcome advice and support. The site visitors also frequently reported a need for continuing internal and external research and evaluation exceeding to a great extent that which is now being accomplished. There was seldom any formal or systematic program of collection and analysis of data concerning disadvantaged students and special programs, either by program staff or by other institutional sources. Program staff seldom included anyone with research skills or interests. The larger and more affluent institutions frequently have institutional research offices and self-evaluation capability, though few were found to have focused any attention on disadvantaged students. In some instances, resistance of program directors was blamed, and, program directors often stated that the effort was too new to risk objective evaluation. Many of the smaller colleges are not now organized or able to make such institutional studies. Both for ongoing monitoring of progress of students in Special Services Programs, and for studying effects of different programmatic treatment and for subsequent refinement of programs, studies at the institutional level seem justified. But in most cases, good ongoing evaluation programs would require more than mandate and funding.

Finally, the importance of individual leaders to the success of special programs should be noted. In special programs reported to be outstanding by site visitors, it was usually possible for them to identify specific persons who made the difference--whether the program director, an administrator, or a faculty member. In particular, it is most important for special programs for disadvantaged students to be directed by competent, able, compassionate, and dedicated persons. In most successful programs, the director is such a person--and in most programs that appear less successful, the program director is usually ineffective. In some cases, the ineffective program director is competent, but for a variety of reasons is not able to make the program successful. It is therefore of utmost importance, also, for the program and its director to have the positive support of others--students, faculty, and administrators--in a climate and setting supportive of special efforts to assist disadvantaged students to reach their potentials as college students.

E. Recommendations

Although Chapter 10 of this report will present recommendations from all aspects of the total study, a task assigned the site visitors, and the several higher education specialists who reviewed their reports, was the formulation of a specific set of recommendations for program improvement. These will be abstracted and woyen into the later statement of recommendations; yet, as they stand in some considerable detail, and as they are an important aspect of the strategy for report of site visit, they are given in some detail in this final section of this chapter.

Recommendation 1:

Institutional commitment and administrative support on many campuses should be strengthened and enlarged, so that Special Services Programs will in fact be in the mainstream of the educational programs in all colleges and universities. Faculty status and participation in faculty meetings and committees on the part of program directors and key staff would improve communications and understanding and assure more appropriate attention to the academic needs of disadvantaged students.

Recommendation 2:

Although federal funding has resulted in a wide range of intervention strategies to equip academically disadvantaged students for academic and personal adjustment to college life, Special Services Programs still all too often lack academic legitimacy or respectability. One solution that would ease this problem is the closer integration of Special Services Programs with the regular academic programs of the institutions. Tutoring, remedial programs, and counseling programs that have no ties with the regular academic departments may have low credibility in the eyes of regular faculty members and minority students, and may be less effective than they might be in helping inadequately prepared students succeed in the regular programs. Courses concerned with ethnic issues offered by the regular academic departments and carrying academic credit could give credibility to the institution's statements of commitment and academic status to minority concerns.

Recommendation 3:

Proposals for funding should show tangible evidence of commitment by the institution--both from its faculty and its administration, and in its practices--to the education of disadvantaged students. Institutional commitment, most precisely, is best attested by what the institution has done, prior to and/or outside the Special Services Program effort, to encourage the enrollment of disadvantaged students, to maintain them once on campus, to facilitate their academic achievement, and to provide relevant educational programs or to engender in them a sense of relevancy for existing programs. Under this reasoning, institutional commitment cannot safely be taken for granted simply at traditionally black institutions; it may be inferred from the kinds of resources provided and effort made with those students whose handicaps result from poverty origin or a low degree of readiness. In the traditionally white institutions, one indication of commitment, for example, might be the allocation of regular faculty time to teaching minority-oriented courses rather than relying on volunteered time; another indication might be the number of minority faculty and staff members already employed by the institution.

Recommendation 4:

Special Services Programs have provided colleges and universities with a sensitive barometer of some of their shortcomings and, among other things, have highlighted the importance of minority members of faculties. Representation from racial minorities on faculties is essential. Minority faculty members should be teaching standard courses as well as courses with ethnic content, and should be accessible to and involved with minority students.

Recommendation 5:

Attention must be given the professional development of faculty members, to improving their motivation and capability to serve disadvantaged students. This might involve both assistance to unqualified members of minorities to become qualified, and help to regular faculty members in their efforts to become better able to teach minority students.

Recommendation 6:

Closer liaison between Special Services personnel and faculty is very much needed. The sharing of program and student data and the scheduling of workshops concerning the learning disabilities and habits, and career aspirations, of educationally disadvantaged students would help establish such liaison. Special Services could exercise leadership in these areas--better understanding and interpersonal relationships between staff and faculty would likely be one of the results.

Recommendation 7:

Special Services Programs have been developed quickly over the country, and on many campuses along most traditional lines. Many programs, therefore, are neither creative nor innovative but are merely variations of preexisting practices. Federally funded Special Services Programs have a unique opportunity and responsibility to break new ground. They should develop new instructional approaches and strategies, and new forms of intervention designed to help the disadvantaged student cope successfully with problems of identity and adjustment to campus life, rather than rely solely on traditional practices designed to salvage regular students who flounder.

Recommendation 8:

Special Services Programs have been initiated so recently and have been maturing so quickly that they appear to be going in many directions at once. Program directors, advisory committees (which should include community representatives), and responsible administrators, with the assistance and involvement of students and faculty members, should on each campus continuously review progress to date and, if indicated, refine and revise the program to make it more effective.

Recommendation 9:

In a number of institutions there is considerable fratricidal conflict, tension, and hostility between and among minority groups (both staff and students) where members of more than one minority are employed or enrolled in the college. It is important that such internecine strife be resolved and discontinued for the good of the programs and the students. Administrators both in the institutions and the U. S. Office of Education have major responsibilities to rectify this unhealthy situation where it exists. Mechanisms for the resolution of disputes over the conduct of the program or other conflicts that might arise should be established from the outset. Too many programs have been caught up in trouble for which the only available solution was the arbitrary exercise of higher authority. Had mechanisms for resolution of conflicts been preestablished, much of the bitterness could have been avoided. Straightforward and predetermined procedures for fair and equitable distribution of institutional and federal funds among the ethnic components within a given campus, rather than leaving this to be settled by an ongoing power struggle among the minority leaders, is particularly important.

Recommendation 10:

The quality of the communications within the institution is important. Students and staff members at the lower administrative levels should be informed of deliberations carried out and decisions made at higher administrative levels. Information should also flow freely between faculty and administrative staff. Continuous efforts should also be made to assure that communications are effective between the institution and the surrounding community.

Recommendation 11:

Stability that comes from experienced staff members is lacking on many campuses due to turnover and to the transient status of many of those employed in Special Services Programs. Special efforts should be made to reduce the transiency of staff to assure better continuity in the programs and better follow-through with students being served.

Recommendation 12:

Supportive services are needed in upper division work as well as in lower division work. This need applies both to transfer students at the upper division level from junior and community colleges and other four-year colleges and to students who started as freshmen at the same institution but continue to need extra academic help. Assistance during an initial period of academic adjustment and remediation may not be enough.

Recommendation 13:

Almost immediately one recognizes festering tension on campuses where minority students are enrolled for the first time. One approach that would reduce this tension would be for aggressive steps to be taken at the very beginning to integrate minority students into the mainstream of campus academic and community life. Some indication should be present in program proposals from the institutions that there is a sensitivity to the need for economically disadvantaged and minority students to be integrated into the activities connected with the institution.

Recommendation 14:

Institutions serving the disadvantaged should be particularly concerned about the effectiveness of and the reward system for remedial academic work as well as the flexibility of requirements. Some institutions allow remedial courses to count as electives, or grant partial credit for a remedial course after the subsequent regular course has been passed, or give credit for remedial courses which may not be used in meeting the standard graduation requirements but for which grades earned may contribute to the grade point average required for graduation. Although such matters are properly a matter of institutional policy, those institutions serving disadvantaged students must establish such academic requirements as those concerning course loads and limitations on employment, with some flexibility to permit adaptation to individual circumstances. Class scheduling to accommodate working, married, or older students, and the extension of Special Services hours to evenings and weekends to provide students with more flexibility in their activities would also be desirable.

Recommendation 15:

Support packages are needed, especially in the physical sciences, to offset inadequate preparation by disadvantaged students. Biology, chemistry, physics, and mathematics are key disciplines where Special Services have made the least impact. Particular attention should therefore be given to funding Special Services Programs in those institutions which exhibit the means to provide successful experiences for disadvantaged students majoring in these areas. An unfulfilled need is for more minority physicians, engineers, pharmacists, and other professionals, and effective Special Services Programs in the colleges and universities can contribute significantly to meeting this need.

Recommendation 16:

Special Services Programs on many campuses, following other programmatic models, are geared to the needs of a residential campus. In many instances, however, a large proportion of disadvantaged students are commuters. Programs should be reexamined to assure that the needs of commuting students are also being met.

Recommendation 17:

A corps of specialists in minority educational problems should be retained by the U. S. Office of Education or the regional offices to assist in its monitoring and evaluation of Special Services and related programs, and to advise program staff or others on campus who work with minority students. Too frequently, program staff at the institution or in the USOE regional offices are "specialists" only in that they are members of an ethnic minority with some past role in teaching, counseling, financial aid, or educational administration.

Recommendation 18:

There is a need to establish a systematic research effort at many of the colleges, to monitor the progress of students served by Special Services, and to determine the effectiveness of program elements. A modest effort of this sort could make Special Services Programs even more effective by making it possible to apply funds and pressures where required. In many places there has been no follow-up on Upward Bound students, for example, who did not go immediately to college. Answers are needed to such questions as: What were the reasons they did not go on to college? Did they enter college later? For those who did go to college, what parts of the program did they feel helped them most or least? Answers to questions such as these would provide valuable information identifying the need for broad services within the entire student body. Procedures should be established for continuing evaluation of Special Services Programs by local personnel, with established provisions for modification or adjustment as the need arises. This type of technical assistance could be provided by making additional money available to employ a person specifically for this purpose or to contract with an outside agency to perform this service. Documentation with respect to the special relationships used or the programs adapted, whether official or not, to motivate and salvage disadvantaged students should be given to the high schools, and to state and federal governments, for the purpose of suggesting areas where increased emphasis and funds could be directed for the greatest benefit.

F. General Conclusions

In conclusion, it should be noted that the numerous recommendations made in the preceding section focus on current weaknesses and on situations that should be improved. It would be incorrect, however, to infer from the recommendations that everything is wrong and nothing is right about Special Services Programs in the institutions at the present time.

As a generalization, it is true that the most successful programs are found at institutions where there is a specific program, directed by a strong leader (usually a member of a minority) with a secure position within the institutional hierarchy and a voice in admissions and financial aid. Site visitors were very much impressed, however, with the overall dedication of program directors and other administrators of Special Services Programs to the students they serve.

On the whole, the administrators in the colleges and universities recognize and are responsive to their responsibility to meet the needs of disadvantaged students and have been trying to do so within the possibilities of the structure. There is a strong desire expressed for the employment of additional minority faculty and administrators at all levels. Faculty members who were initially less than enthusiastic seem to have experienced considerable soul-searching and are now more completely and honestly addressing themselves to the new challenges.

There is no doubt that federal funds are used constructively for student services at most institutions--at only a very few institutions visited were programs really poor. The allocation of funds to the administration of programs and to direct student aid varies, but the most effective programs, as indicated earlier, seem to be the personalized ones with a caring director. Because the Special Services are still so new, and because the purposes served so important and the needs so great, the recommended solution, even where the programs are now inadequate and need much improvement, is not necessarily a termination of funding. What is indicated is a more serious effort to give positive operational suggestions for program improvement, allowing time for necessary changes to be carried out, and accompanied by more persistent monitoring and evaluation. It is hoped that the observations from the site visits will make positive contributions to that end.

There is no question about the educational imperative to continue to narrow, and if possible to remove, the cognitive skills gap between the privileged and disadvantaged in this society. As a strategy, it is too early to tell if the essential content of Special Services supportive activity will be effective or can survive. What is clearly seen, however, are some of the particular hazards and obstacles support services face if they are to be effective--both in facilitating disadvantaged student achievement and in improving the higher education system itself. But the early signs of progress--considering the elitism or upward mobility characteristic of institutions of higher education and their resistance to change imposed from outside forces--are indeed encouraging.

CHAPTER 9

Report of Special Programs for Disadvantaged Students in Higher Education as Seen by Their Directors[1]

> The Program has provided the disadvantaged groups with successful models when minority and other disadvantaged groups are able to 'make it.' .... [A program director comment.]

This chapter attempts to portray special programs for disadvantaged students in higher education as seen by their directors. It is based on intensive study of the institutional questionnaires, Part II, that were completed by program directors for each special program operating at an institution. As noted in Chapter 3 and as shown in Appendix A, this questionnaire requested a variety of information on special programs, services, or activities, that were designed specifically for disadvantaged students. This information includes objectives and goals, successes and failures, problems, program characteristics and functioning, and participant characteristics. Many of the items in the questionnaire were open-ended, and sought informed opinions, evaluations, and expectations of program directors.

This chapter is concerned with how the program directors perceive the educational environment in which special programs operate; program directors' perceptions of students' needs; approaches to servicing these needs; perceived attitudes of administrators and faculty; program successes, failures, and limitations; and the impact of the program on students and students' impact on the institution.

A. The Source of Data

Of the 122 institutions of higher education in the sample, 100 institutions returned at least one Part II questionnaire. Of the 22 institutions not returning a Part II, five indicated in their response to the general institutional questionnaire (Part I) that they did not provide special services for disadvantaged students. The respondents included 41 public, four-year institutions, 19 private institutions, 23 community colleges, and 17 black institutions. Forty-five of the responding schools had federally-funded Special Services projects operating in the 1971-72 academic year, while 55 did not.

The responding institutions returned 267 completed Part II questionnaires. The reported programs included 45 financial aid programs, 40 Special Services projects, 32 Upward Bound programs, 2 Talent Search programs, 16 programs concerned strictly with recruitment, 39 remedial education or adult basic education programs, 11 minority studies programs, and 82 other special programs. One hundred and sixty-seven of the programs (or 62.5%) received some federal funds, while 100 did not. Sixty-four had operated for one year or less, 58 for more than one but less than two years, 136 for two years or more, and no length of operation was reported for 9 programs.

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[1] The principal author of this chapter is Ms. Mary Phillips, the member of the ETS-Durham staff responsible for coding and analysis of all institutional questionnaires.

B. Program Creation and Development

A critical question included in the questionnaire concerned the local forces that served to initiate the program, or to start developmental action.

Key staff leadership was the most often cited internal factor contributing to the establishment of special programs for disadvantaged students. Typical responses were:

> Leadership from within the institution saw the need for this kind of program.
>
> One faculty member conceived the idea and wrote a proposal requesting funds to start this activity.
>
> Leadership from college staff--perceived educational needs of area disadvantaged.
>
> Instituted by the administration through the urging of key staff.
>
> A number of factors helped to bring about the present program (a) the Afro American Association consulted the president, (b) key faculty and staff members reinforced the ideas of other groups on campus to put into operation plans already developed before the president was consulted.

Student initiative was mentioned a little more than half as often as staff leadership, while "college recognition of need" and "administrative initiative" ranked a poor third and fourth respectively.

The internal forces that serve to initiate a program may or may not serve in the actual development of plan and establishment of program content and strategies. Program directors were also asked to describe the forces or people who served to flesh out the special programs.

Despite their poor showing in the establishment of special programs, general administrative and faculty support were listed among the most important internal factors contributing to the development of special programs. Regarding development, program directors cited:

> Predominantly internal factors in the form of increased administrative commitment to the need for staff and programs for our ethnic minorities. Last Spring [1971] the Dean of Student Programs initiated recruitment and hiring of a part-time staff

> member to work with Chicano students, without student pressure as a determining factor. Their support of the idea has been favorable, as proven by the growth of the organization and Chicano awareness in such a short period.
>
> Faculty and administrative awareness of student needs to bridge educational and cultural gap which exist between high school and college.
>
> A general change in attitude by the University community to deal with problems. As a result, for example, departments have developed courses relevant to the ethnic groups represented, the Faculty Senate approved a general education program which will meet the needs of disadvantaged students. The Advisory Board has been consulted prior to submitting the proposal each year for suggestions and criticism which would better the program philosophy.

Staff leadership and student involvement and enthusiasm for programs were also felt to be important contributors to program development.

Among the external factors contributing to the development of special programs, the availability of funds, usually federal and/or state, was mentioned most often. Programs operating with community advisory boards, such as Upward Bound and Special Services, also tended to indicate strong community support.

C. Problems Affecting Program Functioning

Two questions asked specifically for information about problems the programs had experienced, and other questions (e.g., "Have program elements been eliminated or reduced in size...," "...what program changes are needed...") frequently produced answers that revealed problems.

Low funding levels were most often mentioned among difficulties special programs experience. Many program directors complained of marginally funded projects. Other problems included bureaucratic constraints, lack of support for programs from academic departments and college administrations, staffing problems, and reluctance of students to take advantage of programs. In regard to lack of faculty and administrative support, the following comment is illustrative:

> Hesitancy of departmental chairmen to embrace the philosophy of [the program]. Overcoming the momentum (or inertia) of traditional teaching methods.

Staffing problems noted involved not only the obtaining of a qualified, dedicated staff but also, and, more importantly, the maintaining of such a staff. Many program directors felt their programs had suffered from high personnel turnover, the causes of which were linked by at least one program director to the relative job insecurity associated with annual funding of these programs.

The available data did not allow for a determination of relationship between amount or adequacy of annual funding and the quality, effectiveness and continuance of program staff. These are areas that need further research. There did seem to be a general lack of knowledge among many program directors about such critical matters as the numbers of disadvantaged enrolled at the institutions, the number of program participants in previous years, or the history of the disadvantaged at their institution. This may reflect frequent turnover of program directors and staff, or it may be a function of the newness of the programs and program staff to the campuses.

D. Problems of the Disadvantaged in Higher Education

Program directors were asked for their opinion concerning the major problems encountered by the disadvantaged student as a function of his being a member of the particular institution's student body. The variety and frequency of responses of the program directors indicate that this question taps an area seen by most support services staff as one of their main concerns, and the replies suggested a high degree of "student-centeredness."

Most directors of special programs for disadvantaged students cited insufficient financial resources as the major handicap that these students experience. They reported that the students' lack of experience in money handling or budgeting compounded the problem of limited resources in many cases. As one program director expressed it:

> Students have little or no experience in handling money. Even though they receive financial assistance, they are still short due to lack of personal clothes and items in comparison to others.

The second most frequently mentioned problem was inadequate high school preparation for college matriculation. Comments of this sort were, however, usually couched in such a way that the system, rather than the student, was blamed. For example, one program director said of the disadvantaged student on his campus:

> He is a nontraditional student who still has to cope with a traditional instructional program.

Some program directors blamed the high schools for "not bother[ing] to help the disadvantaged student," and for putting these students into

> ...industrial arts, wood shop, metal shop, auto shop, etc. ... anything but college prep. Counselors as a whole are unwilling to deal honestly with these students.

Despite the educational handicaps that many disadvantaged students bring to college, most program directors believe that these students can "make it" in college.

> ...disadvantaged students can achieve and...they do have potential.
>
> ...these students can do as well as those students who are supposedly academically qualified.
>
> ...given a chance and genuine support students in the program can successfully master a rigorous college curriculum.
>
> ...educationally disadvantaged students can, with realistic help, adjust to the academic standards of university and receive an education.
>
> Persons who were 'deadended' in rural...ghettos are making good progress in the development of their full potential.
>
> ...the so-called 'high risk' disadvantaged student can succeed in college and complete undergraduate studies competing with his more 'advantaged' peers.

An exception, notable because of its singularity, was the statement of a director of a remedial math course who said that disadvantaged at his institution brought to college with them a "minimum amount of ability."

The third most frequently mentioned problem that the program directors feel disadvantaged students face in college involved what will be referred to as "general adjustment to college." The scope of this topic is very broad, including student attitudes and expectations, faculty attitudes, social environment, and family and other outside interferences with the pursuit of knowledge. Regarding faculty attitudes:

> Large numbers of faculty still feel enrollment of marginally qualified students 'lowers academic standards,' stretches hardly adequate resources even thinner.

The disadvantaged student

> ...must contend with the elitist attitudes of some faculty members who think that admitting minority students is going to mean lowering levels of excellence. He is expected to conform to white middle class values and not enough respect is shown for his own culture. He feels alienated and finds it difficult to speak out in class.

The disadvantaged student who comes from a distinctly different cultural and educational background from the majority of students has to make an

> ...adjustment to upper middle class elite culture. [College will not adjust to students.]

It seemed quite clear from the program directors' comments that this conflict between perceived student capability and perceived institutional style and goals was more frequently voiced in institutions that have only recently opened their doors to the disadvantaged than in institutions that have historically served a largely or entirely disadvantaged student body.

A problem that was of special concern to some program directors reflected the general

> ...lack of financial aid for students studying part time, the fact that most funding programs support only full-time students is a great disservice to the many disadvantaged young adults who might otherwise benefit from college programs.

This suggests that the older disadvantaged student in particular may suffer because the usual financial aid programs focus on students of typical college age who can attend full time. The problems of the part-time student need special attention.

E. Measuring Program Impact

In response to an item concerning the evaluation of program effectiveness, an overwhelming number of program directors indicated that academic achievement, grade point average, retention rate, and completion of academic degree program are used to determine the effectiveness of programs. Slightly more than one-third indicated some form of participant evaluation, while a slightly smaller group indicated only self-evaluation by program staff. Only one, an Upward Bound director, indicated that parents were involved in any way in the evaluation process. Despite the heavy reliance on strictly academic measures of success, some program directors felt that program evaluation

> ...should look at both the academic and nonacademic experiences of students participating in the program. Follow up [is needed] on both the students continuing at the university and those voluntarily and involuntarily leaving the university.

Directors of federally supported programs often complained that funds were not available to keep the many records necessary to do meaningful evaluations.

Only one program director mentioned any evaluation of faculty teaching the disadvantaged. Instead, program evaluation was most often interpreted as something that must focus on the progress of the students served, not on staff or faculty. Evaluation of program content by some sort of survey of student, faculty or staff reactions appears to be part of most programs.

It may reasonably be assumed that many of the institutions have institutional research offices, or admissions offices that conduct some kind of periodic follow-up of students. Evaluation of programs by such offices, or their assistance to the program directors in conducting such studies, was not mentioned by the program directors. Special Services Program guidelines do not, of course, permit funds to be used for evaluation; yet, whatever evaluation is conducted appears to be done primarily by program directors. Some techniques of evaluation are relatively straightforward and, since many program directors reported concern with overall program results, suggestions for standard evaluation approaches (e.g., tracking students) could provide helpful data without significant cost to program directors and to the Division of Student Assistance for verifying program impact, monitoring programs, and improving them.

F. Program Successes and Impacts

> The greatest success is that our students are succeeding, that is the whole ball game as far as we see it.

This quote would seem to reaffirm the conclusion implied in the previous section that program directors feel that evaluation should be carried on in terms of student progress. Indeed, 14 percent of the program directors cited improvements in academic performance, retention, and proportion graduating as the most visible evidence of program success. For example:

> The greatest success lies in making it possible for students to move along in deficient areas and also achieve on level, attrition rate decreased.

Yet, program directors also pointed frequently to what they considered positive impact of the programs and their students on the institution itself. For example:

> Students not meeting entrance requirements can succeed in college. All students can benefit from such an academic support program. The program now has general overall faculty acceptance.

> (A) Evidence, hopefully soon to be documented, that such special assistance as that in existence on our campus does make a positive difference in the lives of disadvantaged freshmen.... (B) The existence of this program has helped contribute to a more cooperative effort for students between counselors and instructors.

> I think it has developed a concern about disadvantaged students. Hopefully they will be top priority from now on.

> It made the university aware of the fact that if minority disadvantaged students are provided with the resources which they need to 'catch up,' they can succeed. We have a greater number of students staying in school, attending classes and 'succeeding' in an alien environment.

> The greatest successes of the programs are as follows: (1) The development of interrelations with all of the academic departments, (2) the creation of additional faculty and administrative positions which have been filled by minority personnel who have aided the program in developing a good support system, (3) have initiated steps to absorb the program into the university budget, and (4) have established a high retention rate of student success.
>
> The administrations and faculties of both institutions are becoming more knowledgeable of the existence of a need and desire for continuing higher education by persons other than the traditionally successful and high achieving elite. They are going to question the merits and faults of elitism.

One in five of the program directors indicated that the greatest success of his program was to be found in extending the opportunity for higher education for disadvantaged students as evidenced by the increased numbers of disadvantaged at that institution. Eighteen percent indicated that their college had become more aware of and receptive to the needs of the disadvantaged, while an additional 10 percent stipulated faculty acceptance and sensitizing as their evidence of the most positive impact upon the institution. If these two are combined, the result would show that more than one-fourth of the program directors felt that getting their services accepted to some degree was their most important success and/or greatest impact of their program upon their institution. Most of the programs are no more than three or four years old, and 24 percent of the programs reported had been in operation for one year or less; if faculty attitudes have changed in this period of time, this is phenomenal. The implication is that the program director must focus a great deal of attention and energy to getting acceptance for his program and students.

All programs for disadvantaged students tend to follow some or all of the content and strategies of the Special Services Programs. However, for the federally supported Special Services Programs, success attested to by improved performance, retention, and graduation received more emphasis than success attested to by increases in the population of disadvantaged in college. Success is measured principally in achieving admission or maintaining oneself in college on the institution's own terms.

Some comments from directors of Special Services Programs are illustrative of this success, but also indicate that some of the traditional aspects of the institutions are changing. For example:

> Extended retention policy by institution, produced a greater understanding of major ethnic group involved, a greater willingness on the part of the institutions to provide assistance to overcome some of the problems involving its Indian students and the communities from which they come.

Programs for physically handicapped were also primarily concerned with attitudinal changes in the institution that allow for acceptance of their students. Here the concern of program directors is with sensitizing the entire institution to the real potentials as well as the real boundaries of the handicaps of the students:

> The more or less successful attitudinal sensitization to the needs, individuality, and potentialities of handicapped students by the able-bodied.
>
> The campus community has come to recognize the need for such opportunities for disabled citizens, and disabled students have come to better accept themselves as people, ban together for political and social influence, and participate in the direction of their own lives. We expect them to take these skills and feelings to whatever environment they go after this campus.
>
> Much more positive and equal attitude toward disability. Much more openness toward hiring the disabled. Greater awareness by faculty, staff and students of architectural needs of the physically disabled.
>
> Giving many disabled students the opportunity to attend the university and complete a course of studies in good health and without having to be afraid of losing financial support or other services which are vital to their success.

G. Planned Innovations Never Initiated

Planned additions to or extensions of regular academic year program activities (special courses, tutoring, counseling, etc.) were mentioned five times as often as any other single innovation never initiated. New physical facilities (a) and special orientation and summer sessions (b) were the next two most often mentioned aspirations not achieved. Insufficient funds was the single most significant reason given as to why innovations were never initiated. Direct faculty or administrative opposition was mentioned by only eight program directors.

Suggested changes needed to improve program effectiveness included: larger budgets; additional staff; an integration of the program into regular university program, an obvious concern in most cases to have a more secure budget.

> To make program an integral part of the university system with program staff enjoying all faculty privileges such as rank, tenure, etc. Resistance on part of colleges and some of the key faculty and faculty committees.

H. Guidelines for Establishing New Program

Program directors were asked in several ways to make recommendations for general program improvement. A useful question in this regard asked what advice they would give new program directors. Response was frequent and varied.

Some of the recommendations of directors of programs for the disadvantaged to those contemplating or in the process of establishing new services for disadvantaged students may be paraphrased as follows:

1. A conscious effort should be made to establish and maintain a supportive climate at the host institution among college administrators, faculty, and students, and with some programs within local communities.

> The major pitfalls of our program have resulted from the prevailing attitudes of both white and non-white segments of the college community.... An orientation program should be designed for the white or existing college population prior to implementation of such programs to insure a more receptive attitude.
>
> Be sure your proposed program has actual college commitment before beginning.
>
> The major pitfall in a program such as ours would be to establish a program that did not involve the community residents from its inception.

2. Seek an adequate budget; however, recognize the real limitations on final funding level. Be realistic about your budget, gearing your services to it rather than attempting to provide all the services needed with a budget that is not sufficient to that task.

> [Avoid] over-selling the program to the extent that students, the community, and the institution expect more than the program can produce. Be realistic of the goals and potential of the program.
>
> [Avoid] starting off with too many students and not enough staff or funds.

3. Use experienced, skilled staff consisting of a generous proportion of members of ethnic groups represented in the student population to be served.

> ...the number one pitfall is that the proper personnel should be selected to administer the program and instructional staff and administrative staff.

4. Carefully select student participants according to established program guidelines; communicate these guidelines; and insist upon student adherence to program requirements.

> Students should not be recruited unless they have a reasonable chance of academic success.

5. Tailor program to meet needs of students at your particular school; a plan that works at one school may not succeed at another. In developing programs insure that students to be served are involved.

> Do not plan a program 'for' Indians. Plan one 'with' Indians. Work slowly, seeking little or no publicity. Do not use Indians as 'window dressing.' If the program is good, the word will spread by word of mouth all through the Indian community. They will advertise it and make it a success. Theirs is a culture truly apart. Appreciate it and learn through experience. Don't patronize them. They are intelligent, capable, but do things differently and have different values than the Establishment. Indians are skeptical of outside 'assistance.' They are slow to accept it, and will give motives of others a thorough testing before they accept assistance. Be patient. Time has an entirely different meaning for Indians. They are not competitive; they use the communal approach.

6. Set specific program objectives and goals. If you don't know where you are going, you certainly can't tell whether you've been there or not. Manage programs with these goals in mind. Lastly, be flexible. Don't stay committed to a program or approach that doesn't work.

> (1) Have a clear-cut policy statement in writing from the college where the Program is housed, (2) must have a strong community advisory group, (3) close cooperation and long range planning with Financial Aids department of the college.

I. Recommended Changes in Federal Guidelines

The establishment of more realistic family income guidelines was most frequently suggested by the program directors regarding recommended changes in federal guidelines. As two program directors put it:

> Federal guidelines should be more realistic in terms of incomes peculiar to the area or county(ies) served. Many needy students are excluded by present guidelines, perhaps quite unfairly in some cases.
>
> The poverty level is far too low for the New England area. In the terms of cost of living, the poverty level is unrealistic.

The status of the so-called "independent student" also concerned many program directors. These students come from families whose incomes are above the poverty level, but the students receive no financial assistance from their families. In these cases, most program directors believe the guidelines should not require that the incomes of the parents be considered. Also, one program director observed that:

> Many poor students are not qualified due to the 'historically disadvantaged' clause. This should be eliminated.

Further, an EOG program director summed up much of what has been said:

> Awards should be based on family circumstances and need, rather than level of income only. Funding should be based upon individual need not on a state allotment, nor upon estimates of family income.

Another EOG program director suggested:

> A 10 semester eligibility limitation as opposed to the present 8 semester.

Suggestions regarding funding were basically of three types. The first was a persisting request for higher funding levels generally and higher per student expenditures specifically. An Upward Bound director suggested that the guidelines "...raise the per student expenditures per year to $2,000." Another persistent theme was the request for multi-year funding:

> Planning and commitment for more than one year! How can a program be effective if it doesn't know from one year to the next if it is going to be refunded--and second funding comes so late that plans have to be scrapped--readjusted--cut, etc.

Another program director added that,

> Extending the funding year--would permit a guaranteed continuity toward achieving the proposed objectives over a longer period of time.

The third suggestion was the elimination of the matching requirement for federal programs.

J. Summary

In general summary: the environment in which the program directors operate does not seem very frequently to be terribly hostile, nor do the program directors seem hostile toward the institution. However this environment is not always honestly supportive, and programs flounder without a real institutional commitment.

The focus of the program directors is on the student, and on providing him what he needs to make it in college. The energy level they expend is as strongly implicit as their dedication to the student and their dedication to the provision of a soundly conceived and properly executed set of services. Their major problem, it would seem, is not how to salvage students nor how to change the university so that it might be more receptive to them or creative in dealing with them, but rather how to achieve an adequacy and a continuity of financial support that would assure perpetuation of the programs.

CHAPTER 10

Summary of Findings and Recommendations

A. The Scope of the Study

The Higher Education Amendments of 1968 (Title 1, Part A, Section 105, PL 90-575) provided for an activity of support services on college and university campuses, designed to facilitate the progression of disadvantaged young people through higher education. In the second operational year (1971-72), when the studies reported herein were conducted, 190 Special Services projects involving more than 50,000 of the nation's poor and physically handicapped, were in operation on campuses across the country. The most essential purpose of the current inquiry, conducted under contract number OEC-0-72-0116 for the U. S. Office of Education by Educational Testing Service, was the determination of the effectiveness of these programs, as reflected by the progress, satisfaction, aspirations, and judgment of the young people involved.

The inquiry began in the summer of 1971 with a near-exhaustive review of the related literature, both published and unpublished. A second step was a census of all institutions of higher education, to determine the distribution of disadvantaged students over the range of American institutions of higher education, and the kinds of support programs provided for them. Then, over the 1971-72 academic year, there was a detailed focus on a sample of some 120 institutions of higher education (one or two were dropped or added for various parts of the inquiry), some with federally-supported Special Services Programs and some without, but all with some significant cadre of disadvantaged among their student populations. This involved a collection of data of record on institutional and program characteristics by questionnaire survey; and a questionnaire survey of regular or modal versus disadvantaged students with regard to their background, their experiences with the support services programs, their success and satisfaction, and their aspirations. Toward amplifying and/or understanding the nuances of the statistical findings, a portion of the disadvantaged student population was engaged in intensive interviews by peers commissioned to this task, and thirty-one campuses with programs judged to cover the range of possible success were visited by higher education or minority education specialists.

B. Questions Addressed by the Literature on the Disadvantaged

1. What is the general nature of the literature on the higher education of the disadvantaged?

In general, there are very few studies available based on empirical data that would permit an evaluation of the effectiveness of intervention strategies at the higher education level, or that would reveal personal, social, programmatic, or institutional factors associated with success of the "disadvantaged." In what literature on the disadvantaged in higher education that exists, it is apparent that part of the problem has to do with definition of the target group, which varies from study (or theoretical formulation) to study. Sometimes the focus is on a particular racial or ethnic minority, sometimes on the individual with prior record of poor achievement or low scholastic aptitude test scores, and sometimes on those with one or another handicap or combination of handicaps from low motivation to poor educational preparation to financial duress. Another limitation that the literature reflects is failure to consider the variability that exists in the goals, level of difficulty, costs, and social milieu of the nation's campuses. There is a severe paucity of studies that provide these essentials: characterization of the target group on a reasonable number of potentially relevant personal variables (prior performance level, scholastic ability, sex, race, financial capability, motivation); or, on a clearly focused and defined intervention variable (tutoring, remedial study, counseling, etc.); or, on a clearly defined academic or institutional situation (which has to do with selectivity, level of academic completion, provision of special curricula, variable grading and attrition standards, etc.). There is seldom, if ever, an experimental design employed that attends to the simple but urgent necessities for repeated observations over time and for adequate control groups.

There is an abundance of descriptive literature that attempts to explicate the real or the perceived nature or magnitude of the problem. These include: various formulations of disadvantagement; censuses of enrollment of various categories of atypical students in higher education, and trends therefrom; specifications, usually *a priori* in nature, of the barriers that exist to equal access to higher education opportunity; and, some recent descriptive studies of the experiences of one or another kind of atypical student in college. Some of the most vigorous of these descriptive accounts are reports of personal experiences, or are proscriptions based on a point of view of certain grievous inadequacies attributed to one or another perceived lingering prejudice in higher education institutions or programs.

2. *What kinds of facilitation, in what kinds of academic environments, have been found successful for what kinds of students?*

The published studies--and the available nonpublished (usually institutional) studies--simply do not deal with the question, or if they do, conclude that massive, coordinated efforts are needed, or that intervention long before the college age is necessary. Where a study deals with an intervention strategy, the strategies employed are the familiar ones traditionally used with slow learners--tutoring, counseling, remedial courses; or, are logical solutions to obvious needs (e.g., financial aid for those without financial capability to pay the costs; or are strategies involving ethnic identity activities to promote self-understanding or self-respect. Any definitive evidence of positive impact of these intervention strategies is as nonapparent as in the earlier mixed lot of studies of their impact on more conventional students. An occasional exception concerns the impact of tutoring on academic performance or retention. Results generally suggest that tutoring--or, perhaps more precisely, the factors that predispose students to engage seriously in tutoring--can improve academic performance.

3. The answer to the foregoing question notwithstanding, do the disadvantaged who appear on the campus scene perform satisfactorily and persist in college?

The answer to this question is mixed. The best evidence probably comes from a follow-up of Upward Bound students in colleges throughout the country (conducted by Greenleigh Associates) that indicates persistence into the second year of college at rates virtually equivalent to those for all students entering college. Important limitations are the failure to take account of the variety of higher education opportunity, or to match students with same-college cohorts. (Attrition rates vary from college to college, or from one kind of institution to another; the relationship of institutional attrition rates to scholastic aptitude means is neither simple nor clear-cut.) Still another limitation is that the results were undoubtedly contaminated by the "survivor effect"--that is, the Greenleigh study focused on individuals who persisted for one reason or another in a special and intensive college preparatory program, but some of the reasons for persisting in the program are probably related to persistence in college. Other studies--generally confined to single institutions--report mixed results ranging from many fewer to almost the same proportion of disadvantaged as advantaged students persisting. The total weight of the evidence, as well as implications from differences in the findings, suggest that:

a. Traditional measures of academic potential (past performance and scores on academic tests) afford the best evidence of later performance, for atypical students as they do for typical students.

b. Although the performance and academic persistence of disadvantaged students is generally lower than that of nondisadvantaged on the same campus, a significant number of disadvantaged students do persevere and complete their programs of study.

c. Standardized tests of achievement, which could obviate some questions of biases in grading practices, are seldom if ever used to evaluate academic growth--presumably because such tests are feared to be saturated with bias.

4. Toward contriving an effective program of facilitating services, what is the nature of "disadvantage"?

The definitions of disadvantage in the literature are, for the most part, more directed to political purpose than to explicating the origin and etiology of whatever may predispose some individuals to perform less well than others in academic pursuits; that is, most definitions of disadvantage assume simply a differential and prejudicial societal treatment that has excluded certain subgroups from experiences that would permit them to survive in academe, or in a society that has failed to recognize their own peculiar positive traits. The dimensions of disadvantage that are postulated are more frequently logical or *a priori* in nature than empirically derived or tested.

The difficulty with the definitions is that though they may acceptably explain later differences in attainment, they suggest little of a practical nature that may offset or remove the disadvantage. For example, generally impoverished environments sustain a deficit of opportunities for early practice of precursory tasks featured in traditional educational programs; or, persistent failure, over more than one generation, to rise within the socioeconomic structure, impresses the succeeding generation to attempt only simple survival by immediate means in an environment one cannot control rather than to expect that one can exert effort and rise in the socioeconomic system. There are, in short, few definitions of sufficient specificity that they may suggest models of instructional strategy, of predispositions, skills, and attitudes that may be enlisted to remove the deficits in traditional learning situations or to contrive different learning situations.

In any event, genetic arguments (e.g., those of Jenson) for disadvantage, whether "true" or "not true," are proving neither useful nor productive of objective response. Rather than documenting the symptoms of disadvantage using a "normal" or middle class psychology, the emphasis has moved to an argument--if not yet a set of practices--for a rational understanding and acceptance as well as a remediation that is environmental and interventionistic whether causes are environmental or not. Some potentially significant work just starting, such as that of Bruner, Havighurst, or Rohwer, seems to suggest that understanding evolutionary paths, response styles, and reward systems can lead to highly tailored instructional strategies for the disadvantaged that may be effective in erasing the gulf in achievement, or in inducing achievements of equal merit in the larger society. This work has generally not progressed to the later adolescent years and the college learning situation, however.

5. What are the present enrollments of disadvantaged in higher education? Are different distinguishable subgroups of disadvantaged unequally underrepresented?

Census surveys show clearly, as might be expected, that family income is still a powerful predictor of who continues his education in the nation's colleges and universities, in spite of the growing system of low-cost open door community colleges. While almost 20% of the families in the U. S. in 1970 had incomes of $5,000 or less, only about 9% of the college population came from such families; from the 25% of families with incomes above $15,000 came almost 40% of the college population.

Data on racial and ethnic minorities, where lower income as well as discriminatory or traditional forces may deter enrollment, are most accurately available for blacks. Difficulties in classifying (or failures to classify) other ethnic minorities in the Census or in higher education enrollment surveys is a handicap in determining the real degree of underrepresentation for the other minorities.

Though proportional enrollment of non-whites in higher education has grown relative to the proportional enrollment of whites, racial parity does not yet exist. The most severe discrepancies are probably those for the

Chicano and the Native American. The inequities would appear more serious if one takes attrition, by race, from the educational system prior to attaining college age into account, or if it were possible to calculate the proportions, by race, of those 24 years of age or older with college degrees. Of even greater significance is the hierarchical nature of institutions of higher education, and the clustering of the poor or the racial and ethnic minorities in the lower range of this hierarchy on almost any qualitative institutional dimension.

6. What are the barriers to equal access by the disadvantaged to higher education?

Barriers that appear operative, from surveys of colleges and their populations, include "going rates" of level of readiness as reflected by tests or prior preparation that are required for entry into college; costs and cost related factors (both the cost of college and the loss of potential income while studying); geographic availability of reasonable or low cost college options for persons residing in some locations; the divergence in purpose, motivation, and self-concept of disadvantaged going to college from that of traditional college populations; and the practices of many selective institutions to confine themselves to individuals with characteristics related highly, but negatively, to disadvantage. These barriers are not, of course, mutually exclusive. They may be more simply categorized as one or another aspect of (a) the cost and ability to pay barrier; (b) the "perception of inappropriateness" barrier, which drives the individual to other options; and (c) the institutional barrier, where selective forces or academic readiness requirements or necessities exclude or remove individuals that would like to attain a higher education.

7. For the disadvantaged in college, what are the relevant aspects of their experiences?

Studies of the perceptions and experiences of the disadvantaged in college are, for the most part, focused on the racial or ethnic minority in the majority college culture. It would be an understatement to say these inquiries reveal that the minority student finds himself in an alien and distressing world where values, activities, outlets, and rewards fit the traditional student and not himself. Clearly, once the disadvantaged student is in college, possible differences in academic potential seem, from his report, to be minor in contrast to differences in social opportunities, availability of faculty and programs with which he may identify, and the presence of perceived prejudicial practices of the same sort experienced in the society at large. In the late 1960's, on integrated campuses where the minority student was in the minority, he seemed to acquire a progressively greater concern with his ethnic identity than with all of society, and, thus, to experience a consequent increasing rather than decreasing polarization.

In sum: the state-of-the-art of research on the disadvantaged in higher education is in the infancy stage. Disadvantagement is not clearly nor consistently defined, and in any event is multidimensional; the relevant dimensions of the higher education environment, and their interaction with individual attributes, are seldom explicit in study design. Hard experimental designs with adequate controls, to test the effectiveness of various intervention strategies, seldom if ever appear, and race effects are surely confounded with poverty effects. The poor white, as a discrete group, are largely ignored in research efforts.

C. Overview of Procedures in the Current Effort, and Limitations Imposed on Findings

1. The Data Base for the Evaluation

In preparing for and conducting the current study, attempts were made to circumvent some of the problems noted in the review of the literature. Some of the anticipated problems were, in fact, circumvented, but others persisted. Additionally, many problems arose during the course of the study that were completely unanticipated and could not have been predicted from previous studies, in many cases because of the absence in the literature of evaluations of a similar scope and degree of control.

From the onset of the research effort, it was realized that two types of data should be collected: (1) the relatively hard empirical data common to large scale survey research activities; and (2) the softer data obtained through interpersonal contact, on-site observation, and subjective observations made by those closely involved (and sometimes with vested interests) in the projects.

The relatively hard data collected included (1) institutional responses to an all-institution census of numbers of disadvantaged undergraduates enrolled and the nature of support programs provided for them (1766 responses, of which 1167 were relatively complete, were obtained from 2991 institutions after vigorous follow-up); (2) institutional provision of data of record over the past five years on such matters as enrollment trends, ability and attrition data for modal and disadvantaged students, minority group representation on faculty and staff, and inventory of support service programs (105 responses from 122 institutions were ultimately obtained, with 100 usable to some limited extent but all severely deficient in providing the requested breakdowns--either estimates or headcounts--of students and faculty by race over time); and (3) individual responses to a relatively extensive biographical student questionnaire seeking data on the pre-college experience, the college experience, and plans for the future (8213 responses from 113 institutions, of which 7665 were complete enough to be usable, were received from a sample quota of 12,300 students at 122 institutions). The student questionnaire was designed for and administered to samples of both disadvantaged and conventional or "modal" students on each campus; some campuses had Special Services projects, some other support service programs, and others little or no special activity. Other relatively hard data included budget information and numbers of staff and student participants in support programs. This information was obtained from a questionnaire distributed to program directors.

Softer data were collected from (1) written reports of interviews, focused on the college experience, of selected disadvantaged students at a subsample of 60 of the 122 institutions, and conducted by briefly trained student peers from the same campuses (interviews of 752 students from an assigned quota of 988 were obtained by 98 interviewers); (2) the verbal report and discussion of the interview experience by regional clusters of 81 interviewers of the 98 who conducted interviews; (3) reports of site visitors (usually teams of two individuals knowledgeable in higher education or minority affairs) of structured two-day visits to a subsample of 31 institutions; and (4) opinions about the problems and prospects of disadvantaged students or their support programs, generally obtained from open-end questions on the institutional or program director questionnaires.

From the brief account above, it is obvious that a number of limitations and qualifications must be applied to any findings. Probability samples of institutions of higher education of national student populations were not used; within the institutional and student samples, complete data sets were not obtained. In each college, an attempt was made to obtain a nondisadvantaged cohort; this effort was cross-sectional rather than longitudinal. The inclusion of soft data alongside more objective data requires constant caution and prudence on the part of both the interpreters and the readers. Accordingly, it is necessary to preface this summary of findings with a brief discussion of the limitations of the conceptualization and design of the study, the operational problems encountered, the critical interactions found that limit or moderate certain tests of basic hypotheses, and the premises for and treatment of the soft data.

2. Limitations on Results of Hard Data Analysis

One problem encountered early in the study (and one that seems quite common in published and unpublished studies of this nature) was that of defining the major variables of interest. The study was to evaluate the success of programs for disadvantaged students. While program was a relatively easily identifiable concept, disadvantagement and student success (a concept that could be applied to test program impact) were terms that resisted tight operational definition. The resultant definitions within this study reflect the definitions used by USOE in specifications for Special Services Program operation. Specifically, disadvantagement was operationalized as either (1) physical disability; or (2) poverty-level origin. Student success was taken as (1) academic achievement; (2) positive self-image; (3) educational persistence; and (4) satisfaction with the college experience.

Disadvantagement is a much more complex concept than that involved in the narrowly defined limits imposed by the USOE definition, as indicated from the review of literature; yet the poverty-level criterion was one which would seem to have reasonably stable meaning over a broad range of post-secondary institutions. The problem with the definition for those students without obvious physical handicaps were two-fold. First, the institutional sources that were required to identify their disadvantaged campus populations for sampling frequently had no hard data on income of families from which their students came. Second, in identifying disadvantaged students to sample and survey, many institutional representatives could only reflect other more loose definitions, such as lower ability or prior achievement records, or membership in a minority ethnic group that is frequently associated with disadvantage. By the very nature of differences in the range of prior achievement levels of student bodies at different institutions, either a given student who would meet the definition of "disadvantaged" on one campus would not meet the definition on another, or, the gulf between a disadvantaged student and the modal student would vary from one campus to another. On a traditionally white campus, any minority student might be classified as disadvantaged, and in fact might suffer some handicap; on a traditionally black campus, some black students could properly be considered as modal, or at least less disadvantaged than others. And, perhaps most important of all, disadvantage was not defined behaviorally from a documentation of deficit functioning of some kind.

Another limitation stems from the possible misclassification of some students whose responses were included in the Student Questionnaire data pool. The requested number of questionnaires from young men and women whose responses evidenced disadvantagement according to either the criterion of poverty or physical handicap were not received from many institutions and the resultant apparant oversampling of modal students may suggest that some individuals who were treated as part of the modal cohort might have been considered disadvantaged for one reason or another. Some of the data is also suggestive--e.g., it does not seem reasonable that only about two thirds of the modal cohort reported that their fathers had completed high school or had had post high school training.

The application of the notion of physical handicap to a definition of disadvantaged has obvious problems, too. How handicapped must a student be to be at a disadvantage? What may be the varying impact of different kinds of physical handicap? A counseling program for a student confined to a wheelchair is a distinctly different kind of facilitating intervention than are ramps that permit him access to classroom and library.

Thus, it would only seem inevitable that the identification of students as "disadvantaged" or "nondisadvantaged," on the basis of their observed success or failure in a variety of institutions and as a result of a variety of support interventions, would produce a mixed bag--even when the relatively simple USOE operational criterion is employed.

The matter of defining student success seems somewhat more straightforward and less arbitrary. To remain in higher education programs, students must perform satisfactorily; they live and succeed by the academic standards the institution imposes. They must persist over time to the completion of programs to receive a degree or diploma and to thereby realize full benefit. An unavoidable difficulty in this definition, when examining academic achievement and persistence of individuals pooled across institutions, is that standards and content of evaluation procedures vary considerably from one institution to another. Institutional standards may be more powerful than individual differences in determining "success."

Indices of student satisfaction with the college program and environment, and/or self-perception indices, were also used in this study as criteria of success. These criteria can obviously be contested on the basis that satisfaction or positive self-image may or may not accompany actual progress in learning and development.

Support services programs were defined as a separately budgeted body of intervention activities under the specific direction of a faculty or staff member, with goals and objectives a matter of institutional record, and designed to facilitate the learning and adjustment to college of students with deficits of one sort or another. In practice, as previously noted, programs consisting of or containing such elements as counseling, tutoring, remedial activities, and the like were considered support service programs. The major limitation that emerged from this consideration was not one of program definition, but rather failure to examine program components in terms of the nature and extent of their content. "Counseling," for example, can consist of a wide variety of classes of interactions between a counselor and a counselee.

The problems noted with basic criterion definitions suggest a number of design problems, where even optimum solutions leave certain limitations. As noted earlier in this report (see Chapter 6), the study undertook to examine a rather complex and multifaceted process of educational intervention imbedded within the even more complex process of postsecondary education. Moreover, in comparison with other remedial or support programs, the SSDS programs operate with substantially different student input, under federal guidelines, on substantially different postsecondary campuses with subsantially different external pressures. The separation of institutional effects from student input or program component effects is a hazardous design problem. Given the obvious impossibility of true experimental design, the natural second choice of design would be longitudinal with carefully selected comparison cohorts. The design imposed on the study, however, was a cross-sectional one. Obtaining a feel for the dynamics of process operation (which is itself changing over time due to external and internal pressures and feedback) at a frozen point in time is in itself a monumental task.

Given the cross-sectional design, inferences as to "effect" (in a causal sense) of process operation are virtually impossible. Comparison groups may, of course, be formed, but lack of initial control in the introduction of individuals to the process (the self-selection, uncontrolled selection or selection through survival problem), can often explain any differences found between individuals who participate in programs and/or achieve in school and those who do not. Answers to questions of process effect in such designs are thus primarily relational in nature.

Even within the constraints of relational studies, however, it is quite important to measure all relevant variables. Spurious relationships between variables have often been reported, which, on later examination, were found to be primarily a function of a more meaningful relation to another variable.

Since this study was, effectively, the first major attempt to examine the process of Special Service Programs for disadvantaged students at the postsecondary level, there is no guarantee that all relevant variables were considered. An attempt was made to include those variables which were known or were anticipated to impinge on postsecondary success; however, the many possible interrelationships and interactions of all these factors could not be anticipated.

Further limitations on the findings result from operational problems encountered once the project had begun. As noted earlier, the prospect of probability samples of students and institutions had to be abandoned because of prohibitive costs, and facets for constrained sampling specified (these facets were described in Chapter 3). Of greater importance, however, was the failure to obtain reasonably complete samples of responding individuals or institutions on a voluntary basis, or to obtain complete data from these less than complete samples of respondents. The evidence of differential questionnaire item nonresponse between the groups of disadvantaged students and their modal peers is, perhaps, of greatest concern. Particularly where evaluation may be seen as threatening, or where refusal to participate may signal limitations of vital concern, the biases introduced by less than complete response or differential response rates may be quite serious. Still another problem of the less than 100% response--or the failure of institutional representatives to deliver samples of disadvantaged students within specified minority groups (or even within the appropriate college classes)--was the resulting small cell sizes. This is a particularly critical limitation when institutional effects must be determined or controlled.

A final "hard data" limitation worthy of consideration is a problem of the meaning of the variables that is related to the standard approach imposed on minority-ethnic groups of different and probably only vaguely perceived interpretations and response tendencies, particularly with the student questionnaire and the structured interview guide. The definitions of success and satisfaction were those of the research team. The Native American students and consultants in particular seemed to feel that not only were alien standards and objectives imposed on them, but assumptions as to proper questions or as to a proper range of response options were made that were not sound (e.g., the Native American is neither competitive nor introspective). Although cognitive tests--a frequent whipping boy as infested with cultural bias--were not used, the varying interpretations given to the standard questions by members of distinctly different subcultures could make the instruments used potentially more "culturally biased" than any cognitive tests. Vigorous attempts were made to represent, in the professional staff and consultants, the major ethnic minorities studied; these individuals frequently differed in interpretation of results, a fact that poses even more stringent needs for caution in examining and accepting the tentative findings. Although their need for positive findings is understandable, so too is the validity of many unique meanings and points of view.

3. Limitations Imposed by Reliance on "Soft" Data

Considered as soft but nevertheless useful and relevant data were those direct appeals to participants in Support Services Programs (students and program directors), or observers (other campus respondents or site visitors) of the Support Services Programs. Disadvantaged students were interviewed by other disadvantaged students, who then reported what they felt and what they felt they had found; program directors were asked to speculate on their successes and their failures. These reporters must be assumed to be succeptible to a number of biases--for example, students of poverty origin, in the context of reporting their needs through the contractor to USOE, could be expected to stress some aspects (e.g., financial aid) and to minimize others (e.g., program failures, where report could be perceived to jeopardize continuance of whatever was provided). Program directors in particular, concerned with their continued employment, might be expected to provide an unrealistically high valuation of their role and services. Interpreting and reporting these experiences introduces still further possibilities of errors of judgment.

Although approaching the campuses with some preconceived structure and with the mandate to inventory and report observed behaviors as objectively as possible, the site visitors also produced data reflecting a variety of perspectives. The criterion of program effectiveness inevitably was the apparent smooth functioning of one or another highly visible aspect of the program, or the absence of trauma, or the positive association of a student or program director with some favored program or institutional attribute, or the negative association with some feature presumed to be threatening, punitive, or disruptive.

A particular hazard with such soft data is that strong convictions and too definitive answers may be prevalent. The program director, flushed with the acceptance by and loyalty of his students, or harrassed by a hostile faculty, may have some sharp evaluations of what is good and bad about special services at that institution. The campus visitor who observes in rapid succession varying interpretations or valuations and apparently consequent tensions may attribute negative valence to forces that ultimately result in stronger programs. In short, the softer the data, the more definitive (but deceptive) the conclusions may become.

The next section of this summary chapter will therefore, as a caution to the reader, attempt to identify with each major conclusion the nature and source of the data leading to that conclusion. Both hard and soft data have been used; in the present effort, each has particular limitations. Some critical questions can be tentatively answered only by one or the other approach; and, whatever the empirical findings, the subjective impressions and experiences may yield important contextual clues as to the subtle consequences of the programs.

D. Summary of the Major Findings

1. A Description of the Disadvantaged in College and Their Support Programs

An initial series of questions were essentially descriptive in nature. For example, what is the current extent of poverty-level and physically handicapped students in higher education institutions? What are their unique characteristics? In what kinds of institutions do they enroll? What kinds of support services are provided, at what costs? How are these costs supported?

With regard to the extent of the disadvantaged undergraduate student population in the nation's higher education institutions, the all-institution census conducted in this inquiry found that the best available evidence from local sources, institution by institution, suggests that about one in seven (or 14%) of the nation's enrolled undergraduates, in 1972, came from families within the national poverty classification. Their distribution among colleges, however, is most uneven: one-third of the colleges report less than five percent, and one-third report more than 16%. In about six percent of the institutions reporting, a majority of students fall within the poverty classification.

These figures are probably low in reflecting the institutional proportions or numbers, because nonresponding institutions generally tend to enroll large numbers of disadvantaged. They are probably high in comparison with figures that a complete census of students by accurate income figures would reveal (as suggested by data from the 1970 survey by the U. S. Department of the Census), because of overestimation by institutions.

"Disadvantage" was defined for purposes of the study as it is in the Special Services Program guidelines--that is, the individual must fall within the national poverty classification or be physically handicapped. Thus, the question of the characteristics of the disadvantaged who enroll in colleges and universities becomes one of the important characteristics of the poor or physically disabled in higher education.

Before summarizing the findings in this regard, note must be taken of a persistent and pervasive finding in the data: On almost all potentially relevant variables tapped systematically by the student questionnaire, race effects were far greater than poverty or physical handicap effects. In other words, when students reporting family income in the poverty classification are compared with their campus cohorts of similar race who are above the poverty classification, very few differences beyond those obviously related to financial capability emerge; even fewer differences emerge between physically handicapped (who, if in college, are seldom financially depressed) and modal students. Much sharper differences emerge among the several racial/ethnic categories than among the poor versus the nonpoor.

On the critical matter of high school performance, virtually no difference appears between poverty versus modal whites, or between poverty versus modal blacks. About 72% of whites, and 65% of blacks, of whatever income level, report B- or better averages. For Puerto Ricans and Mexican Americans, about 64% of the modal, and 57% of the poverty group, report grades of B- or better. Native Americans and Orientals have the largest discrepancy. For the Native Americans, 70% of the modal but only 56% of the poverty group report the B- or better average; for Orientals, 84% of the modal but only 60% of the group achieve a B- or better average. Thus, poor whites and poor blacks appear to have performed in high school about as well as whites or blacks in general who are attending the same college. Poor Orientals, poor Mexican Americans, poor Puerto Ricans, and poor Native Americans who are in college seem to have performed in high school at distinctly lower levels than did their modal cohorts. It should be noted, however, that the sample of poor cannot be safely considered to be representative in each ethnic group. Differences in high school averages may be even greater due to inequities in the pre-college educational system for the different groups, or may reflect the practices of the particular constellation of higher education institutions used in the sample.

From the student questionnaire, few surprises were noted between disadvantaged and modal students. Poverty origin students are less likely to have had certain social or cultural experiences such as dinner with a date or out-of-state travel; physically handicapped students have an understandable and realistic disinterest in participating in sports. Poverty-origin students depend more heavily on nonfamilial sources of financial support than do modal students. The ranks of physically handicapped and Chicano students tend to hold more older students than appear in the modal groups. All categories of disadvantage hold lower proportions of single students than appear in the modal ranks. More of the poor come from small towns or rural areas, or from small schools. The poor tend to rate the quality of their high schools lower than do modals. Only 34% of the poor report that more than half their high school class continued their education after high school, against 49% of the modals. Slightly less than half of the poor come from predominantly white high schools. Parental education level is higher for modal than for poverty-origin students (about two-thirds of the poverty student fathers, against about one-third of the modal student fathers, have not attained a high school diploma). Only about one in five of the poverty-origin students draw half or more of their financial support from parents or other relatives. Parents of poverty level students are less frequently reported as involved with the student's educational activities (helping with school work or talking with teachers) than are parents of modal students.

Some apparent similarities between nonpoverty and/or physically able students and disadvantaged students are of great importance for understanding the disadvantaged in general (e.g., there were no differences in proportions of disadvantaged versus modals on such reported activities as checking books out of the school library, receiving "A" grades or poor grades, or in having elementary school teachers particularly admired). In short: the critical differences are principally those that may be expected from lower income and its material impact, or, in the case of the disabled, the physical restrictions. Those disadvantaged who are in college do not appear to be "visitors from another planet" in their survey questionnaire description of themselves.

Only about one-fifth of the poverty level students surveyed by the student questionnaire reported that they had participated in special pre-college programs such as Talent Search or Upward Bound. Of that group, however, 71% stated that such programs were influential in their decision to attend college. In spite of the more limited parental involvement with the student's current educational activities, all groups attribute the greatest influence in their decision to attend college to their parents. The poor and the modal rank their teachers next in importance, then their counselors. Yet, when considered by racial or ethnic group, high school teachers and counselors seem more influential in the decision to attend college for poor white as compared to modal white, while the opposite is true for the poor versus modal black, Chicano, and Native American students.

The more significant distinctions are those found to be associated with race or ethnic group membership, as suggested earlier and as reflected in the index of level of prior academic performance. However, the data from interview sources (rather than from the survey questionnaire) generally seemed, to the research team, to be more relevant in explicating other differences. Summary vignettes from the interview experience may be drawn as follows:

. The groups of racial and ethnic minority poor on college campuses tend to reflect the more pervasive strategies for achieving equal access and positive self-identity, though they seem to vary by minority group in what stage of development this struggle has reached. The college environment is more unfamiliar, and frequently has fewer advocates or like cohorts than the white majority students are afforded. For almost any difficulty or problem, discrimination can be plausibly invoked as a cause; disadvantagement is something forced on the disadvantaged by a WASP majority, more than by personal deficit. Their purposes in attending college tend to be more pragmatic than for the modal white students, and the more casual view of college by the majority is frequently seen as an inferior trait associated with being white. Interests in courses not typically represented in the curriculum of the traditional college is frequent. And, the need to understand who and what one is, to accept this comfortably and with pride, frequently appears.

. Blacks appear, at least in the data gathered in this study and at this time, to have stronger preferences to associate with others of the same race than do the other minorities, but all of the racial/ethnic minorities, with the possible exception of Puerto Ricans, express a need to associate with others like themselves, to gain strength or social stimulation by coming together.

. The Chicano students, concentrated largely in the Southwest, may reflect regional as well as cultural differences. A prime difference may be that classes are taught (and have been taught) in what is for many a second language. They seem more positive in their regard for other ethnic groups than do other minority students, yet they profess strong loyalties to their own subculture. They tend to be older than other groups upon entering college, and to feel less at ease there than other minorities.

- Insufficient numbers of Puerto Rican students were interviewed to form very reliable impressions. However, like the Chicano, Puerto Ricans usually have English as a second language. Most of those interviewed were fairly positive about their colleges, though they felt negatively toward the unseen and unknown administrators. There was a suggestion that in viewing their college experience they tend to look on it as a whole, with equal emphasis on living and learning. Social opportunities are important to them.

- The Native Americans, particularly those from the reservation setting, seem in many ways to be the most unique and distinct minority. They are generally numerically smaller than other minorities on campus, and sometimes seem less certain as to their reasons for attending college or as to what they will do in the future. Their reticence about themselves, and the apparent inappropriateness of many questions in the interview or questionnaire used, seem to signal most forcefully that the special needs and distinctivenesses of this group were not uncovered. The discrepancy between campus and home environments may be greatest for this group.

- The physically handicapped in college are distinctly different from other disadvantaged as defined by the Higher Education Amendments of 1968. First, they are highly similar to modal students in terms of family income and race; their problems are not those of the financially pressed nor of the ethnic minorities, but those with some physical restriction to learning in a traditional setting, to social interaction, or to establishing themselves through later work role as a self-sustaining and productive member of society. Their needs relate not to remediation of academic deficiencies but to having access to a reasonable chance to remove or find ways around the physical barriers to learning in a traditional setting designed for nondisabled students, and to attaining (and proving to themselves that they have attained) a way to be productive and self-sustaining. They relish their college experience as a chance to be on their own and to interact comfortably with physically able people

- The poor white in college are markedly different from the other poor in college in terms of a greater degree of early and continuing academic* and social success in school, and in absence of various

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*Except blacks, the student questionnaire data revealed that the poor versus nonpoor blacks, as well as poor versus nonpoor whites, did not differ significantly in prior high school performance. About 70% of all whites, and 65% of all blacks in the study reported B- or better high school averages.

> anxieties and behavior manifestations attributable to being a readily identifiable minority. Their way out of their poverty problems is to assimilate, to accept and become a part of the majority culture, a choice not so likely to be accepted or even possible for the more readily identifiable minorities. These generalizations suggest that more aggressive recruiting by some racial minorities may have achieved a pool of students who are more hard-core academically disadvantaged than are the groups of poor whites who appear in college.

Except for the physically handicapped, the initial question raised in this section--how do disadvantaged in college differ from modal students--is best answered in terms of financial need.

With regard to the kinds of institutions in which disadvantaged students enroll, the available evidence from the all-institution census indicates that disadvantaged students are found more frequently in nonselective institutions; in publicly supported institutions; in two-year institutions and/or in the larger universities offering graduate degrees; in nonresidential institutions; and in nonaccredited institutions than are their modal cohorts. Institutions with federal support for disadvantaged tend to enroll the highest proportions of the disadvantaged. Sharp regional differences also appear, with larger proportions of disadvantaged enrolled in the southeast and southwest, and the smallest proportion in New England. For example, the southeast, with 19% of the institutions in the total sample, has 55.7% of the responding institutions reporting 51% or more disadvantaged students, against 6% of all institutions responding. In the southwest, 10% of the responding institutions reported 51% or more disadvantaged, while only one of the 111 institutions in New England reported 51% or more disadvantaged. This phenomenon is no doubt both a function of the kinds of institutions in each area (e.g., the traditionally black institutions are concentrated in the southeast) and of regional differences in number of disadvantaged.

The most important fact, however, is that among the hierarchy of types of institutions, factors of selectivity and of cost produce very uneven distributions of disadvantaged among the various opportunities for higher education.

With regard to the extent and nature of support services programs, the all-institution census found that at least half, but no more than 75%, of the nation's institutions of higher education provide no special support programs designed to facilitate disadvantaged students. Where such exist, the prime source of support is federal funding, with only about 15% of the programs funded exclusively by state or local government, 15% exclusively by regular institutional funds, and less than 10% exclusively by private foundations. The respondents to the census questionnaires judge it unlikely that these programs would or could exist without federal funds, and they perceive the low priority for institutional funds given to such programs as a major problem.

The bulk of the support services programs designed expressly for disadvantaged students tend to be new features on the college campuses. Almost one-half of those programs found in the sample of 122 institutions were less than two years old. Similarly, most of the programs revealed by the all-institution census are quite new; the average (median) age of the programs reported was 2.6 years, and only three percent had histories extending ten years or more in the past. This suggests that it is far too early to evaluate program impact in terms of numbers of students persevering or continuing into graduate study, as well as that the apparent success as reflected by these indices is, in actuality, a function of institutional factors (see section C-3 on page 11 of this chapter).

In this connection, and for purposes of moderating later evaluations, it is important to note that institutions applying for and receiving Special Services Program funds have histories of lower proportions of disadvantaged graduating, and that programs in institutions with higher proportions of disadvantaged graduating have smaller student/program staff ratios and higher per-student program costs. This first phenomena cannot attest to the quality of the Special Services Programs, for, at the point of the Census, programs had only been in operation for two years or less, and thus could involve only freshmen or sophomores. The most sensible interpretation, more precisely, is that federal funds for the programs have apparently gone to institutions where in the past the disadvantaged have had high attrition rates, or where the need for improving chances for academic success and persistence are greatest. With regard to the second phenomenon, the most reasonable explanation is that those institutions with higher proportions graduating are those that may give more individual attention, or where costs in general (e.g., staff salaries) are typically higher.

The site visitors and the program directors reported that support services programs sometimes originate because of interests at the top administrative levels, but more frequently seem to gain impetus from the interests of one or more key members of the staff, from the students themselves, or from community pressures. The reasons reported for administrative or general institutional support can vary from compatibility with institutional objectives to institutional need for operating funds (with the carrot of federal support to provide or release needed funds). The uneven distribution of support services programs among institutions suggests that those with higher proportions of disadvantaged, the less selective, or the less expensive in terms of what the student pays, are more likely to seek and initiate programs. It would seem safe to observe that there is a prevailing conviction (though it is seldom voiced) that it is easier to design the course or the requirements to fit the student than to change him so that he can accommodate the course in the same style and with the same ease as that of modal students--a philosophy in direct opposition to that implied by the Special Services Program content.

The most frequent program components, found in more than six of every ten programs reported on the all-institution census, are academic counseling and advising, special recruiting strategy, and tutoring. About half provide for diagnosis of learning difficulty or for remedial courses, and almost half report use of special instructional media or strategies. Nearly half involve cooperative effort with community agencies or organizations and about the same number provide job placement assistance. Guidance for graduate study appears in about one in every five programs. Slightly more than half are concerned in whole or in part with the administration and management of student grants, work-study, and/or loans.

The all-institution census data indicate that programs funded as Special Services Programs tend to have a wider variety of the several components than do other programs. Also, the content of the programs appears to reflect specific institutional goals: e.g., selective institutions more frequently provide tutoring or guidance toward graduate study, but provide remedial courses less frequently than do nonselective institutions. Programs on traditionally white campuses seem to differ in content from those on traditionally black campuses primarily in the greater frequency of recruiting components.

There is, of course, a considerable variety of patterns of staffing, numbers of students, and costs. However, the typical program, as revealed by median values of data reported on the all-institution census, involves two staff members and two faculty members, and it serves fifty full-time-equivalent students at a cost (excluding student aid) of about $673 per FTE student involved in the program per year.

Special Services Programs tend to have larger staffing, and serve larger numbers of students at lower per-student costs than other programs. Per-student costs in general, however, appear highly related to general institutional per-student costs, and/or to the extent of services provided, and/or to whether attention is individualized (as in counseling) or not (as in use of special classes).

2. The College Experience of the Disadvantaged

Given the descriptive overview of the disadvantaged and the special support services programs provided for them, questions of central importance to the inquiry that should now be answered from the data are: How do the disadvantaged fare in college? What institutional or personal factors affect their achievement, progress, and satisfaction? In particular, what direct evidence (e.g., from observable impact on students) or indirect evidence (e.g., inferences from observations of programs or report of their directors) of program impact were found, and what is the nature of this impact?

Estimates of the persistence of disadvantaged students (and the data must be considered to be strictly estimates) from the all-institution census reveal that the institutional respondents perceive a wide range of disadvantaged student success and level of perseverance. About half of all of the enrolled disadvantaged are believed to graduate, and about 10% are believed to continue into graduate study. The Census evidence suggests, however, that attrition rates for disadvantaged at any given institution are highly related to attrition rates for all students at that institution. (This may mean only that institutional respondents drew their estimates from the proportions of all students graduating.)

For the students responding to the student questionnaire, reported grades of all groups (modal and disadvantaged) are lower in college than they were in high school and there appears virtually no difference in the college grades of poverty versus modal blacks, or of poverty versus modal whites (as may have been expected from their high school records). About six out of ten whites and four out of ten blacks show A or B range grades, whether poverty or modal.

In spite of the lower performance in high school of poor Orientals and Puerto Ricans as compared with the high school performance of their modal cohorts, there are now no substantial differences in college grades between poverty versus modal Orientals: six out of ten in each group achieve in the A or B range. Nor were there substantial differences between poverty versus modal Puerto Ricans: about three out of ten in each group achieve in the A or B range.

For Native Americans and Mexican Americans, the modals in college have better college grades than do their poverty cohorts. For Native Americans, about one of two modal versus about one out of three poor, achieve in the A or B range in college. For Mexican Americans, about five out of ten modal versus four out of ten poor, achieve in the A or B range in college. These differences appear to be consistent with the high school grades of modal versus poverty students in these two categories.

Taking all racial groups together, 56% of the modal and 47% of the poverty groups report college averages of B- or better; for the physically handicapped, 57% report college averages of B- or better. These grade averages presumably reflect one year of work for about 52% of the sample, two years of work for about 37% of the sample, and more than two years of work for the remainder. The presence of sophomores, and some juniors and seniors and the absence of some freshmen who failed or left school with low averages undoubtedly inflates the proportions of disadvantaged reported with A or B grades over that proportion that would have been found for all entering disadvantaged freshmen.

Although the poverty groups in general have somewhat lower grade averages in college than do nonpoverty groups, almost half of the poverty-origin students report college grade averages in the A or B range, indicating clearly no gross or pervasive disadvantage for the students surveyed in meeting the academic demands of higher education in the institutions in the survey sample. When the racial/ethnic groups are considered separately, there are differences in the college grades from group to group, but the magnitude seems to be about what one would expect from the high school performance records of the groups--in short, to represent different selectivity (self or institutional) factors rather than racial differences. The rather consistent regressions, among the groups, of college grades on high school grades also suggests that there is no evidence that the institutions in general or any support services available are providing disadvantaged students experiences that would help them raise their prior levels of performance (the correlation between high school and college grades for all respondents is r = .39 and the range for the separate groups is from the high .20's to the low .40's).

No significant differences among college majors were observed in the distributions of the modal versus the poor, except possibly in the sciences (biology, physical science, mathematics, etc.) in which 9% of the poor against 13% of the modal student questionnaire respondents reported majoring. By ethnic groups, white, Oriental, and Puerto Rican students were two to four times more likely to major in one of the sciences than were the other ethnic groups.

In ranking a variety of courses taken in terms of difficulty, there were no substantial differences between the poor, disabled, and modal (except for physically handicapped vis-à-vis physical education courses).

Regarding study habits and practices, there was a clear indication that poverty students seem to be working harder than the physically handicapped or modal students. The poverty students more frequently reported such behavior as rereading an assignment three or more times, or spending more than two hours at one time at the library. They also reported more outside reading in a variety of fields such as poetry and biographies but less in humor and science fiction. However, when considered by racial/ethnic group, the trends between modal versus poor are reversed for the Native Americans and Puerto Ricans, in which groups the modals appear to work harder and read more than the poor.

With regard to patterns of financial support, there were only minor differences in questionnaire reports of working modal and working poverty-level students in number of hours per week devoted to jobs. Nevertheless, poverty students were somewhat more likely to hold a job than were their modal cohorts. The trend holds within the ethnic groups except for poverty-level whites and Orientals, who are much more likely than their modal counterparts to hold a part-time job. The most likely source of funds for all students appears to be parents and relatives (over half of each group got some aid from this source, though modals receive more support from parents than do poverty students). Poverty students indicate greater support from EOG, work-study, and NDEA loans; almost half of the poverty-level students report having assumed some form of loan. Scholarships of some sort were held by about one-third of both poverty and modal. Among the ethnic groups surveyed, the white students seemed to have the greatest success in obtaining financial support from any sources and the Native Americans the least success.

With regard to perception of self on items relating to self-in-college (e.g., feeling of adequacy of preparation as compared with campus cohorts and anxiety compared to others) modals seem to take college somewhat more in stride and have a generally more positive view of themselves, than do disadvantaged. Poor Native Americans most frequently saw college as "great in every way for me" and as providing interesting courses. Poor Orientals and blacks responded positively least frequently. Among modals, whites had the most positive, and blacks the least positive perceptions. White students, both modal and poverty, tended more to see themselves as obtaining high scores on standardized tests than any of the other groups.

When the Student Questionnaire items were subjected to factor analysis, two dimensions were suggested--one related to general positive self-perception, and the other to positive perception of academic ability. The results with the factor scores are not dissimilar from those obtained with the individual items. However, the results emphasize that whites and modals have more positive self-images than do their ethnic or poverty cohorts.

When asked about preferences for campus associations within or outside one's own racial group, there were no differences of significance between the poverty and modal classifications or between poverty versus modal by race. However, Orientals and Puerto Ricans most frequently stated no ethnic preference, while blacks most frequently (25%) stated a preference to associate with others of their own race. With regard to time spent in extracurricular activities: physically handicapped avoid sports, of course, and poverty-level students are less likely to participate in activities requiring capital outlay (e.g., dating). Native Americans and Orientals reported less involvement than the other groups in social activities.

The Student Questionnaire presented twenty areas of satisfaction with a variety of aspects of college life--e.g., capability of teachers, grades received, and opportunities for social life. Whether examining these items individually, or grouped by factor analytic solution into four dimensions, i.e., general college atmosphere--faculty and administration; social-interpersonal; academic; financial-persistence--modal or poverty white students seem generally more satisfied. With this exception, differences due to ethnicity are generally more pronounced than those due to the modal-poverty-level dimension, and there is a suggestion of an interaction between ethnicity classification and modal-poverty classification. Further, there seem to be large and pervasive institutional effects--of such magnitude that modal-poverty status or ethnic classification seems minor in comparison. Given the relatively small numbers of incompletely overlapping institutions, this would imply that further generalizations about ethnic or poverty groups are hazardous.

The question of the impact of support service activities on the disadvantaged is, of course, the central question to be explored in the current inquiry.

The student questionnaire listed some thirty kinds of support activities representing a variety of elements, e.g., tutoring and counseling, and the nature of those elements, e.g., tutoring by faculty, tutoring by students; or, personal counseling, career counseling, academic counseling, financial counseling. Students responded as to whether or not the service was available, had been used, and had proved helpful.

In general, poverty-level students indicated a higher degree of participation in the various activities than did either the physically handicapped or modal students. This differential participation was particularly large for the areas of: professional counseling on financial problems; student loan or scholarship; and, student work-study programs. A slightly greater degree of participation by poverty-level students than by the remaining groups was also observed in the following eight areas: tutoring (both by students and professors); professional counseling on job or career choices; remedial courses and courses on reading skills development; independent study and honors programs; assistance in finding part-time employment; help regarding decision for graduate education and choice of graduate school; help in locating a job after college; and help or advice on becoming "test wise" or studying more effectively. A major exception to this general pattern involved those activities in which both physically handicapped and poverty level students indicated greater degree of participation than did modal students: professional counseling for personal and academic problems; programs for improving writing and number skills; and reduced course load. In addition, physically handicapped students indicated greater participation in student health services and attendance in classes of small size than did other students.

The only exception to the general findings presented above was that poor Native Americans and poor whites reported notably less participation in tutoring activities and counseling activities.

For those students who reported using available support services, 70 to 94% stated that they found it helpful. The pattern of perceived helpfulness was very similar across ethnic groups and between modal and poverty-level students.

Before presenting the summary of the tests of the "hard data" criteria of student success, student satisfaction, and support program impact, it is important to emphasize several cautions. First, given the fact that differences among ethnic groups frequently overshadowed differences between poor or physically handicapped students and modal students, tests of support program impact should be made within ethnic groups rather than between modal versus disadvantaged across ethnic groups. Second, the strong institutional effects must be re-emphasized with particular regard to student satisfaction: inspection of the arrays of institutional means strongly suggests that satisfaction, as measured herein, is largely institution specific. The analyses of differences between disadvantaged students at institutions with SSDS programs and those at institutions without such programs need to be made by racial/ethnic category as well as by disadvantaged/modal. In the current effort, the numbers of disadvantaged students of a particular ethnic group made for very low cell sizes, and the numbers of institutions where comparisons could be made were considerably less than the 113 institutions providing some student questionnaire data. In short: the effects of being disadvantaged, the effects of ethnic group, and the effects of institutional differences, as well as complex interactional effects, make the critical question of discovering program impact more difficult to determine.

Where tests could be made, the success of the disadvantaged student relative to that of the modal student is no greater nor no less at SSDS participating institutions than at nonparticipating institutions. In terms of the satisfaction indices: at predominantly black institutions, students in general were more satisfied at institutions not participating in SSDS programs (except with the personal financial situation) than at participating SSDS institutions. At predominantly white institutions, there was no significant difference between SSDS participating and nonparticipating institutions on student satisfaction indices, but the institution type by race interaction and the institution type by disadvantagement interaction were both statisically significant.

The nature of the interaction involving race is fairly evident; the extreme reversals are the Native American students who show consistently greater satisfaction at the SSDS nonparticipating institutions and the Puerto Rican students who show greater satisfaction at the SSDS institutions. There was a greater similarity between the satisfaction indices of the physically handicapped and modal students at SSDS program institutions than at nonprogram institutions. White students, on the other hand, show very small differences between participating and nonparticipating institutions. The remaining ethnic groups show no clear advantage to either SSDS or non-SSDS institutions. Nevertheless, there are relatively smaller differences among ethnic groups at the SSDS institutions than at the nonparticipating institutions on all indices except satisfaction with general institutional atmosphere. Certainly one of the aims of SSDS programs (as of any egalitarian program) is the minimizing of success differences among diverse groups with equal potential. There is some slight indication that ethnic differences are smaller at the institutions hosting SSDS programs than at non-SSDS participating institutions. This is certainly not to say that the SSDS programs have any causal effect in this regard. The reduced differences could be due to a multitude of other factors, including recruiting practices, self selection of attending students, or other institutional philosophies or interventions common to the institutions hosting the SSDS programs. In any event, the interaction suggested by the data is a very weak one.

The interaction of SSDS participation and disadvantagement on satisfaction was even weaker than that of SSDS participation and race on satisfaction. Differences between poverty-level students and modal students are generally small, but are somewhat smaller at the nonparticipating institutions for general institution satisfaction, social satisfaction, and academic satisfaction. Regarding general self-perception and satisfaction with financial matters, modal versus poverty-level differences were smaller at SSDS participating institutions. Reexamination of these interactions by univariate tests of the individual indices showed only one statistically significant interaction--college grades. College grades of poverty-level students were higher in nonparticipating institutions than in SSDS institutions, while there were no differences between modal students' grades at these two types of institutions. Causal inferences are, of course, not warranted. Moreover, it should be recalled that, as reported in the all-institution census, SSDS programs were found in institutions reporting lower proportions of disadvantaged students graduating and it is likely that SSDS programs exist at institutions where disadvantaged student survival is more difficult.

The relationship between reported use and benefit from a support service program component can be summarized as follows: student program participants at SSDS participating institutions see their program as no more helpful than do users of similar services at nonparticipating institutions with the exception that students at SSDS institutions were more likely to rate as helpful "Having a counselor of your own ethnic group." However, perception of a programmatic element as having been helpful is generally significantly associated with satisfaction and also with academic success. The relationships are stronger when ethnic groups are considered separately, and are more pronounced within the black student group. However, the direction of the relationships between perceived helpfulness of a particular support service activity and success or satisfaction reveals a simple problem: for example, for black students, satisfaction with "help in learning how to study more effectively" or "small classes" is positively related to satisfaction with college, while satisfaction with "professional counseling on academic problems" is negatively associated with satisfaction with college. It is only reasonable to expect those students experiencing academic distress to seek out academic counseling. A further problem is the suggestion from the data that some particular kinds of programmatic treatment are differentially related to success indices, depending on the particular ethnic group.

In summary, it is fair to say that little, if any, positive (or negative) impact of SSDS programs is indicated. Some of the reasons such a result might obtain have to do with matters suggested earlier: problems of interactions of key variables by race or by institution, small cell size, possible greater challenge at SSDS than non-SSDS institutions, and the simple fact that the users may be those of greatest need. Some of these problems are probably those that have hampered, for example, the empirical proof over the last several decades that any positive results accrue from any professional counseling, or that remedial courses are not fail-safe.

3. Characteristics of Smoothly Functioning Support Services Programs

With the absence of definitive proof in the empirical data of any major and positive impact of the support service programs in general and the SSDS programs in particular, it might seem well to stop at this point in the summation of findings, and to proceed with sobering recommendations. Yet, there is the possibility that positive answers could only be reasonably expected to come from greater awareness of critical interactions (as revealed by this inquiry) and consequently better controlled experimentation, with larger numbers, better criterion measures, reasonable control groups, and longitudinal data collected over sufficient time for impact to take hold.

Given that possibility, other kinds of evidence, though for the most part subjective, need yet to be summarized. For example, the site visitors collected anecdotal evidence of some frequent kinds of problems in the operation of these new support programs and program directors, in response to the open-ended questions, had a number of experience-based opinions concerning the way in which programs might operate more smoothly and/or become more effective.

The program directors, and the site visitors, noted a variety of types of problems that affect the operation of support services programs for disadvantaged. Some of those frequently noted underscore the importance of: administrative support (and the integrity of that support); assignment of the necessary control of the program to the project director, including budget management responsibility; freedom from faculty hostility; adequacy of funds for maximizing program services, or more particularly adequate funds for scholarships and grants-in-aid; finding ways to prevent "special services" from acquiring the lower status of a salvage operation or of an ethnic identity, with resultant stigma for student participants; accommodating students from a variety of racial/ethnic groups in such a way that each group is treated fairly or feel that they are treated fairly; maintaining student interest and involvement in support activities provided for them; reducing staff turnover (attributed to year-to-year funding); coping with the values, social styles, or readiness gulf on some campuses between disadvantaged and modal students; obtaining hard institutional data that might guide the operation of the program or help determine the most effective mix of program elements; and coordinating special service elements with regular services offered traditional students. Dedication of staff to the needs of disadvantaged students was seldom if ever perceived to be a problem by the site visitors or the program directors; but the status of the program director among other faculty and staff of the instruction frequently was a central concern--which seemed to be a function of his academic credentials and salvage mission rather than of his race.

The several higher education specialists who reviewed the detailed reports and recommendations of the site visitors postulated (see Chapter 8) a number of factors that logically seemed to be associated with smoothly functioning programs that had reasonable chances of success in a program management sense. These include:

- institutional commitment, as reflected in a history of concern predating federal support indicated by support in part using institutional resources, by ready involvement of regular faculty with program goals, or by the degree of real responsibility delegated to the program director by the administration;

- ability of the program director to command the attention and respect of the other faculty and staff of the institution, and ability to manage his budget;

- absence of a values and performance gulf of significant size between disadvantaged students and the modal students on the particular campus; and/or absence of a strongly ingrained elitist philosophy and practice at the institution;

- availability of adequate (though extra-program) sources of student financial aid, and the mature but student-centered management of disbursal of aid;

- involvement of regular teaching faculty in program activities; and ready channels of communication between program staff and regular faculty;

- recruitment of sufficient numbers of students, to form some sort of "critical mass."

The fact that these factors could not be directly related to differences in impact of program on student success and satisfaction in any systematic way makes these, of course, hypotheses for further investigation.

Another kind of evidence--though even more subjective and difficult to defend on the basis of its authority and freedom from vested interest--comes from the all-institutional census replies concerning attitude toward continuing and/or expanding the Support Services Programs for disadvantaged. As might have been expected, virtually no institutional respondents saw the programs as a failure; four of every five indicated that optimal numbers of students had not yet been obtained, but that additional funds would be needed to serve larger numbers. Federal, then state, funds were felt to be the most likely sources of additional support, with foundation monies less likely, and regular institutional income (e.g., income from endowment investments) least likely. At this point in time, then, institutions with Support Services Programs seem willing to increase the numbers of disadvantaged served, but only with additional public (state or federal) support.

It should be noted in passing that support services per se are not necessarily new or infrequent. Tutoring, counseling, financial aid, health services, remedial courses, part-time employment assistance, housing offices, placement offices, and the like are virtually ubiquitous, as standard and established ways to support easement of problems that many modal as well as disadvantaged students encounter. In a way, support services for disadvantaged represent in large part only a collection of customary or "old" style strategies for the "new" students.

New elements in support services that appear to be a function of the "new" students seem to be generally confined to a special residence or a special place for minority group social activities. Of the more traditional support services, courses in minority culture, and counseling on personal financing and budgeting (where they exist) are reported on the institutional questionnaires as most frequently created initially expressly for the disadvantaged (in the case of about one in three of the institutions reporting such services, while only one in ten institutions reporting scholarship or grant programs stated these were created expressly for disadvantaged students). Remedial course, reduced course load, or activities to improve study skills, were reportedly created in no more than one out of four instances expressly for the disadvantaged. The use of support services, as reported by the institutional respondents, follows the same pattern, e.g., those services initially created for the disadvantaged students are most widely used by the disadvantaged. Counseling, tutoring, help in planning courses, scholarships or grants-in-aid are viewed as appropriate for students in general; the more unique services for disadvantaged are academic support through remediation, opportunity to earn, and social activities or special courses prescribed for a particular minority racial-ethnic group.

It is significant, however, that although some programs, obvious failures of various kinds, and although a few appeared indeed to be in chaos, their impact on the institution was almost always stated in positive terms, even by observers who indicated that they had been initially critical (e.g., a head of a faculty senate at a prestigious institution who had lived through the climb upward to "quality" and selectivity, and who reported he first opposed the program and its students because they threatened to reverse the upward institutional mobility so tediously acquired). That positive impact generally involved a postulated change in campus attitude toward the disadvantaged themselves, toward their general acceptance and accommodation by faculty, administration, and other students. Certainly this seems to have resulted in increased numbers of disadvantaged, particularly the racial minorities on traditionally white campuses and increased minority appointments to faculty and staff positions. The programs seem to be a powerful force for institutional change in admissions policy, curriculum, faculty and student attitudes, instructional strategies, grading and retention policy, and the like. It would seem clear that the plight of the disadvantaged is being more sympathetically recognized, there as, in many instances, is their ability to succeed in academia, and that the resulting democratization of the campus has had instrinsic rewards for all its inhabitants. Whether those rewards are sufficient enough for the programs to be sustaining outside the context of federal support, or for the students to be maintained, is yet unclear.

E. The Disadvantaged in College and Their Support: A Summary of the Most Essential Elements of the Argument and the Findings

Support Services Programs for disadvantaged aside, it would seem clear that whatever the American System of higher education has become, whatever its cherished and traditional values and conceptions of standards, and whatever its customary practices, the accommodation and facilitation of the disadvantaged is by no means an impossibility. More disadvantaged students are entering the system, and may persist and survive; their gross impact on higher education as reported by the various observers and respondents seems generally positive.

Part of this phenomenon may be a function of the heterogeneity of the system, and its capacity to respond to a wide range of needs, interests, and capabilities; part may draw from the capacity of higher education institutions to change when presented with challenge in regard to providing for the growth and development of students who want to learn, and who are excited about the opportunities their campus tenure may unleash. The phenomena may also, in part, reflect pressures for financial support and maintenance of a student body of an accustomed or projected size, in the face of enrollment decline or tighter money for support. Yet, the need for some effective support for the disadvantaged seems real. At the least, many prospective students who are poor simply cannot afford the costs or the time away from job. The college environment for the poor or the minority ethnic group member is not so much hostile, as it is alien, lonely, costly, and deficient in reward.

Neither a positive nor negative impact of Special Services Programs on disadvantaged students is shown by the empirical findings. The consequences of these programs, and the students they may attract, may include such things as changes in traditional admissions practices, accelerated acquisition of minority faculty and staff, and even a reexamination of some of the elitist notions that have pervaded many institutions. Nevertheless, the proof of their merit or failure is not firmly in hand.

Those concerned at institutional or national levels with the creation and the maintenance of support services for disadvantaged may choose to abandon the effort, to displace it with other strategies, to try to further develop, strengthen, or to modify current efforts. The research reported herein, while neither attesting program impact nor identifying reliably any conditions under which (or any strategies through which) positive impact may be manifested, does reveal some better understanding of the task involved. Some of these critical findings (or reaffirmations) are:

1. The most reliable precollege predictor of later academic success remains that traditional measure used in the past--previous academic performance. There is no evidence that participation in support services activities systematically improves performance and satisfaction with college over that which may be expected from past performance.

2. Colleges differ in important ways: cost, grading standards, attrition rates, kinds of programs, nature and social patterns of student bodies, features attractive to students, and so forth. These institutional differences account more surely for differences in disadvantaged student success and satisfaction than do the presence or absence of particular support services or support services in general.

3. In understanding student (or learner) behavior and attitudes, race effects are more critical than poverty or physical handicap effects, with the implication that any efforts with the disadvantaged need to be particularly sensitive to the racial or ethnic backgrounds of the students served.

4. Without adequate financial aid, poverty stricken students are less likely to enter college, to succeed, or to be satisfied with their college experience. There are important differences or inequities in the degree to which financial aid of various kinds is known, available to, or used by the different racial/ethnic groups.

5. The physically handicapped in college have little or no problems in common with the poor and the ethnic minorities. To provide effectively for their obvious needs, different support or facilitation strategies need to be employed. The combining of physically handicapped and the poor under one program does not seem warranted.

6. The need for further research, and developmental activity with rigorous evaluation, is still evident--both for more definitive answers about the impact of programs, and for the contrivance of better intervention strategies. Better data, on individuals over time, needs to be routinely maintained; harder experimental designs, with better controls, need to be employed.

7. The data suggest that whatever forces are in operation to equalize access to college for the poor in comparison to the nonpoor, they may be working more effectively for the poor whites and the poor blacks, and less effectively for the poor Orientals, Mexican Americans, Puerto Ricans, Native Americans, and other ethnic minorities.

8. The presence of Special Services Programs and/or disadvantaged students on the campuses seems to be associated with a change in campus attitude toward the disadvantaged, toward their more general acceptance and accommodation by faculty, administrators and other students (although students and staff identified with salvage programs may be viewed negatively). Student and faculty interaction is probably essential for cultural and ethnic understanding.

9. Administrative acceptance and support and the ability of the program director to establish himself in the campus political and power system, appears basic. Successful accommodation and institutionalization of the disadvantaged involves regular faculty, staff, curriculum, as well as special efforts or support services.

10. After a reasonable time, program evaluation and renewal should be based on the success of students performing on a level that equals or exceeds that of their nondisadvantaged peers at that institution. Both internal and external evaluations should be built into contract requirements for renewal. Ongoing evaluation is a sine qua non for continuance, given the absence of proof of effectiveness of current efforts.

F. Recommendations for Further Action

Even with the inconclusiveness of the present study, a great many useful recommendations can validly be drawn from the experience. These can be classified into three categories: (1) recommendations for institutions of higher education, toward the more effective establishment, revision, and operation of the programs; (2) recommendations for the federal government and the agencies and offices concerned with improvement of guidelines, of the program award process, of the management of programs, and of their monitoring; and (3) recommendations for further research.

1. Recommendations for Institutions of Higher Education

a. Institutions considering admission of, and/or support programs for, disadvantaged students should make careful study to insure that institutional objectives are compatible, commitment is honest, recent experience with minority/poverty students has been sustaining if not trouble-free, and that a potential program director who evidences clear commitment to students, credibility and rapport with faculty, and sufficient fiscal responsibility, administrative skill, and judgment is available.

b. The administrative structure, or institutional lines of authority, should be clearly specified to assure more than casual response to needs and problems that may develop, i.e., faculty hostility, disruptive incident, need for curricular change, reordering institutional budget priorities, etc.

c. The institution should recognize that the "new" students will bring special interests and needs, such as courses of personal cultural relevance, occasional privacy with like peers, and sustaining social outlets. It should also be recognized that many disadvantaged students must establish or re-establish an identity and self-regard that may ultimately yield new skill in interacting with individuals of different backgrounds and values. These needs apply to *all* students, of course, but on most campuses, they are better met for traditional students.

d. Institutions should be careful to take whatever action seems necessary to reduce or remove the stigma frequently attached to such operations as special support or remedial efforts and often associated with such terms as "disadvantaged" or high risk.

e. The availability of support services must be publicized so that students who might profit from such services are prompted to seek them out.

f. Special care needs to be taken when several diverse racial/ethnic groups are accommodated in one program to insure fair and equitable treatment and to insure that provision is made for the separate needs that may vary more as a function of ethnic subculture than of poverty or of some generalized notion of disadvantagement.

g. Program directors should make special effort to enlist the honest and sensitive support of the teaching faculty, who, after all, control the ultimate destiny of the student through their grading systems and through their versatility as effective instructional agents. There are no winners in open warfare between program directors and their students on the one hand and the teaching faculty on the other.

h. The program director should concern himself with a thoughtful and realistic budget, being careful not to take on so much activity or so many students that the program impact is vitiated. In addition, careful, thoughtful, and specific program objectives and goals should be established.

i. Although easement of financial problems is needed by all poverty-origin students, the institution, in planning its program, should consider the very real possibility that what is effective with members of one racial group is not necessarily effective with members of another racial group. The support program must deal intelligently with the ethnic differences if truly equal opportunity for reasonable and sustaining achievement is realized.

j. Careful, rigorous, and honest evaluation needs to be built in or required if programs are to be progressively improved. At a minimum, cumulative records of student achievement and progress must be maintained, and this record contrasted against that of students outside the program. Evaluation should focus "soft" data as well (e.g., students in the program will have particular experiences and thoughts worth considering).

2. Recommendations for the Federal Government and Its Agencies and Offices

a. Hard data of an unequivocal nature should be routinely collected and maintained on program participants, toward establishing a better monitoring system for program award and improvement. This should include, at a minimum, the names, ethnic group, high school rank or grade average, and annual summaries of number of credit hours attempted, number of credit hours completed, grade point average and attrition rate. Program evaluation and renewal should be based on success, after a reasonable time, of the participant students who obtain a satisfactory performance level according to institutional standards. Subdividing participant students by ethnic group should reveal the critical information on whether the services provided are equitably effective. (To obtain similar levels of achievement and persistence, differential treatment of the various subgroups of disadvantaged is probably necessary.)

b. The policy of encouraging program directors and staff of the same ethnicity as the students to be served should be continued.

c. The monitoring of programs, and the training of USOE professional staff who conduct this monitoring, should be given highest priority.

d. Careful note should be taken of the general finding in the present study that the basic objectives of the program are easier to achieve in some institutional settings than in others. Success seems more likely in those institutional settings where the gulfs--in values, behavior styles, and expectancies, as well as in prior performance levels and abilities--between disadvantaged and modal students is not so wide.

e. Careful note should be taken of the apparent fact that Special Services Programs may normally enlist different portions of the disadvantaged in the several ethnic subgroups. For example, such programs may currently attract only those poor whites whose major handicap is poverty and who are not handicapped academically, or those Native Americans with handicaps of both poverty and academic ability or readiness. Thoughtful federal policy deliberations should be directed toward determining whether, for example, support services going to poor whites of good potential might be better directed to poor whites of less potential or to ethnic minorities.

f. There seems to be no convincing reason, empirical or logical, why physically handicapped should be included in the Special Services Program package rather than in a program with components tailored more precisely and specifically to their different and distinct needs. Their problems are not discovering ways to catch up academically, to find ways to meet costs of tuition, but special facilitation--medical care, removal of physical barriers, alternate methods (to reading or listening) for acquiring information, and special assistance in getting in-college or postcollege employment.

g. Grave concern should be given to discovering ways to encourage institutions to find support for increasing portions of program costs from regular institutional sources. The fact that federal support is assumed to be the only financial source for any special facilitation at many institutions funded through the TRIO programs poses hazards for the effective institutionalization of the disadvantaged, and the most efficient use of funds expended.

h. Although the present report does not document the exact extent of inequities in the allocation of funds (more exact data bases are needed), it is apparent that inequities do exist--in funds made available to the various ethnic groups, and in dispersal among the USOE regions. A careful and formal determination of numbers of high school graduates in the 18-24 age range within the poverty classification, by ethnic group and area of residence, should be drawn, and funds for programs should be allocated to these groups proportional to their weight among the nation's poor. Otherwise, the proportional allocations will be determined primarily by political pressures, and will result in the almost inevitable power struggle among the ethnic groups not for their fair share of the pie (which is so small anyway) but for as much of the pie as they can garner.

i. Continuation of funding, particularly now that most programs have had a little time to mature, should be based on evidence of their effectiveness as attested by the persistence rates of participating students when compared with those of nondisadvantaged students on that campus. A simple covariance approach, involving the regression of grades on the high school rank in class, could be used to properly account for differences in academic potential at the time of admission. Institutions and projects willing to employ standardized tests, in a before-after with control group design, should be encouraged by noting the acceptability of this kind of proof of impact.

3. Recommendations for Further Research on Program Effectiveness

As is so frequently the case, the study reported has raised more questions regarding program effectiveness than it has answered. There is a clear need for further research into the effectiveness of Special Services Programs (and other educational intervention programs designed for the disadvantaged at the postsecondary level), and, in particular into the relative effectiveness of specific programmatic elements. The current study has dramatically revealed the multitude of variables which may affect program operation and output measures and has suggested some of the many dimensions of program effectiveness. In addition, the findings presented in this report do provide some valuable clues as to the direction and scope needed in further evaluative research studies.

Basically, there are three levels at which further research, particularly relevant to USOE needs, may be conducted: the individual project level; the regional level; and the national level. Although for different purposes, questions of overall effectiveness of the program(s) may be addressed at each of these levels. At the regional and national levels, questions of relative program effectiveness and impact of institutional factors may be raised. Research at the project level would best serve the adaptation and modification of a program at a specific institution. Institutional or project level research, evidencing positive impact, could be a requirement for continuation funding. Under such a requirement, some standardization of procedures would be necessary as a guide for those staff members who would organize the research and who would collect and report the data as well as to obviate institutional efforts to "look good."

While the exact level at which further research should be attempted, the scope of such research and the specific research team or teams selected will depend on many factors, the current study has revealed a critical need at each of the levels for maintenance of systematic, comparable, and readily retrievable information regarding program participants. It would seem desirable that the Office of Education create and maintain some data bank of this information (perhaps similar to the data bank maintained on participants of another of the TRIO programs, e.g., Upward Bound). The specific information to be maintained would depend on continuing routine evaluation or summative evaluation data needs of the Office of Education, but minimally such a data base would include:

(a) Pre-process measures on participants (e.g., race, high school--or prior college--grades, results of standardized tests, prior participation in educational intervention programs, socioeconomic status);

(b) Project (and institution) identification (which could be made compatible with such an external file as the HEGIS file).

(c) Longitudinal data regarding the participant's usage of various services offered by project/institution; and,

(d) Longitudinal data regarding output measures reflecting short-term and intermediate "success" (e.g., college course grades and persistence).

Additionally, it would be desirable to maintain some follow-up postprocess data on all participants or a specified sample of participants. Such an information system, if scrupulously maintained, would provide the Office of Education with a means of producing current and historical summary statistics as a base for a national program profile. Such a system could also provide, through appropriate aggregation, regional profiles which could be distributed to the regional offices. The use of such a system to evaluate relative program effectiveness could be undertaken, provided adequate care was exercised in controlling for the project/institutional differences (in both input and process) which have been documented in this report (e.g. attrition of disadvantaged students on a particular campus acquires meaning only against the all-student attrition rate for that institution).

The importance of project/institutional differences, in terms of both input and operation, would certainly suggest that in any further national evaluation studies of these programs, program success is probably best reflected by the aggregate success of the individual projects within their respective institutions than by the success of some "program in general" aggregated over program and institution. That is simply to say that given the large number of dimensions on which project/institutions vary, the "success" of a project is best determined against the specific frame of reference within which it operates. Participants, specific emphasis, and external processes operating vary considerably from project to project and the success of the project should be judged in relation to a common operating frame of reference (the most common of which is the specific project). For example, output measures on project participants compared to some imaginary national "average college student" (or an equally imaginary "average disadvantaged nonparticipant college student") is less meaningful than comparison with similar students within the same institution. This would suggest the maintenance at the project level of sufficient data to provide such comparisons. Routine continuing evaluation studies at the project level is considered to be one of the most meaningful ways to evaluate overall program effectiveness, and to provide the institutions with factual data on which program improvement may be based.

In addition to the recommendations for data maintenance and types of evaluation specified above, certain general recommendations regarding further research efforts can be distilled from the results of this study. These include:

- Regardless of the level at which future research may be attempted, it is patently clear that longitudinal data are needed. It is not enough to point to differences after the fact and attribute such differences to program success or failures. More germane to program effectiveness is the progress of and change in participants over time.

- If comparisons between program participants and some selected group of nonparticipants is to be made, the specification of the comparison group requires careful consideration. The "disadvantaged," by definition, differ from "modal" students (whatever definition of disadvantaged is employed) on at least one critical dimension. A preferred comparison group would therefore be other disadvantaged students who have not participated in the program. If such groups are not available, sufficient data should be collected on the comparison group so that statistical control of initial differences between the two groups on relevant antecedent variables may be accomplished.

- If "disadvantagement" of program participants is defined in terms other than ethnicity, any comparison groups employed should also reflect the same ethnic proportional structure.

- Should the research effort concentrate on programs at more than one postsecondary institution, it is critical that the researcher be aware of the strong institutional effects and interactions with ethnic and financial classifications of students in relation to various output measures. The presence of institutional specific influences on output measures in an interactive sense substantially increases design problems for national studies. Either this variable should be controlled in study design, or measures should be taken to allow the partialing out of institutional differences. Comparing programs at different institutions without partialing out institutional effects has obvious dangers which have been previously discussed.

- If programs are to maintain flexibility in their approaches to facilitation, the criteria for program success should be relatively constant over any projects that are compared to one another in terms of specific output measures (i.e., projects concentrating on counseling groups of students with no particular academic difficulty should not be compared in terms of academic performance to projects concentrating on strengthening the academic muscle of poorly prepared participants).

- In evaluating relative effectiveness of specific program components in terms of logically specified outcomes, it is insufficient to characterize programs in the sense of lack or presence of components, rather the quality of the component should be considered (there are many activities which could be subsumed under the heading "tutoring"--ranging from occasional group encounter with a student tutor to intensive personal tutoring by graduate student or faculty member).

In addition to the specific consideration listed, a further suggestion results from a major difficulty encountered in this study--namely, the problem of defining program success. Certain superordinate program goals can be stated at the national level (typically these would be in terms of the success of program participants). If such goals are couched in generalities, this allows flexibility at the project level in determining specific program thrust which can be tailored to the specific target group within the particular institution. At the same time, however, it restricts the comparison of programs and the evaluation of overall program success. If specific behavioral objectives are desirable regardless of particular program thrust, then they should be succinctly and affirmatively objectified in national guidelines. Moreover, the critieria against which such objective measures of program effectiveness are to be compared should be explicated. The particular set of measures and criteria employed in this study are not suggested as a model; however, they may provide a starting point for the development of such a model. Regardless of whether behavioral objectives are specified at the national (or regional) level, they certainly should be specified at the individual project level. As has been stated previously: within the current framework of program operation, the most meaningful evaluation of program success is within project/institution. Without objective criteria for success at this level, such evaluation is at best "fuzzy" and at worst meaningless.

In conclusion, the future researcher in this area can obtain many valuable lessons from this initial study. The greatest lessons are perhaps in the unanticipated rather than the anticipated problems and in the unresolved rather than the resolved issues. The findings are certainly tentative and need substantiation through replication. Definitions, instrument specification, design, and sampling techniques will certainly need to be more precise and sophisticated than those of the current study. The problems which will be encountered in such research are numerous and complex, but certainly not insurmountable.

G. Epilogue

The foregoing recommendations are not only drawn from the tentative findings, but also based on the premise that the Special Services Programs will continue for a time to be structured as they are at present. Although the complex race/institution/poverty status interactions and sampling limitations make any general conclusion difficult, it is safe to say that the intensive and extensive evaluation mounted found no conclusive empirical evidence that the Special Services Programs, in toto or through one or another element, do (or do not) improve the chances of disadvantaged students to succeed academically, to persist in college, or to find satisfaction in their development and college experience. The most positive evidence--which is drawn, to be sure, from the relatively soft data--seems to be that the programs promote a new presence on traditional campuses, which, in turn and in time, seems to promote a democratization, a new challenge to faculty, and a new acceptance by modal students. A second positive finding (or, at least one that may be so construed), is that thus far federal monies for special services seem generally to be invested in institutions where disadvantaged students have the greatest need in maintaining themselves at a level with their less disadvantaged peers--that is, Special Services Programs have generally been awarded to those institutions with sizeable numbers of disadvantaged who have fared badly, in the past, in comparison with their nondisadvantaged peers on that campus.

These positive findings are clouded, however, not only by the absence of objective and pervasive proof of positive impact on disadvantaged student achievement and attitude, but also by a number of logical considerations. The curriculum and instructional strategies of the nation's campuses, as well as their social and reward systems, tend to be tuned to the interests and ready capabilities of the more affluent and better prepared modal student; change is slow and tedious under any circumstances, and institutional movement in the past has been more toward a concept of greater selectivity and greater "academic rigor" than toward a concept of excellence in terms of how much growth is induced in any student. But of greatest import, probably, is the fact that the support procedures represent by and large conventional strategies used in the past with any poorly achieving student, and that these are maintained more on obvious need for something, and on faith, than on any proof of clean-cut positive impact. The fact that these activities are perceived as essentially salvage in nature by many faculty who then judge students through grading on frequently subjective grounds; the fact that the empirical data from this study reaffirm complex cultural differences among the racial and ethnic groups that modulate success and satisfaction; the fact that program staffing seems to be predicated on the assumption that like disadvantage (in terms of minority status) is a prime requisite for program control and management (when all the while the minorities are more deficient in specialized manpower on whom to draw); the fact that Special Services Programs impose a relatively common hold on diverse campus situations and existing capabilities; all these considerations make absence of positive and dramatic impact not at all surprising.

One other major finding of consequence emerges from the data: that is, that the Special Services Programs are apparently hampered by a precarious year-to-year existence that appears to depend to a large degree on continued federal funding. An associated problem is that participating institutions may not see the need for internal financial support of the disadvantaged because of the massive federal funding of special programs. Thus, the availability of federal funds may appear to obviate the need for institutional investment in their disadvantaged students and may divert institutional financial resources from the disadvantaged to activities designed for modal students.

Given the absence of general proof of impact of Special Services Programs, the absence of creativity in the relatively stereotyped solutions the program components entail, and the natural hazards in the complexity and the difficulty of the task, it would seem that two other major recommendations deserve thoughtful consideration. These are:

1. Somewhere within federal assistance--and perhaps within the fabric of the Special Services Programs effort itself--there needs to be broader, more intensive, and more creative search for effective support that would facilitate the growth and independence of the disadvantaged. The higher education community--and ethnic group leaders--may need a broader opportunity to develop alternate intervention strategies. Some other kinds of approaches--or modifications of current approaches--include:

a. the establishment, on some campuses, of a "voucher" system, where students are permitted to invest in and sustain those facilitating prospects they choose;

b. the use of some funds to strengthen and augment regular campus support services, rather than to create special unique, segregated, and competing but lower status (and perhaps lower quality) services;

c. the establishment of a block grant for some institutional centers capable of contriving and refining their own innovative solutions;

d. more rigorous monitoring and control of existing programs to insure that components are not only present on the organization chart but are also functional with students;

e. the support of regular faculty who take on, within the context of their regular teaching assignments, special components or activities designed to reach and teach the disadvantaged student.

2. Ways should be sought to award funds to such institutions--and under such conditions--that progressive movement toward self-sufficiency in financial support can in time be attained. One procedure would be to assure continuation grants over a five year period assuming progressively larger shares of the cost to be assumed by the institution and its other sources of support. Federal monies saved or accumulated could be progressively diverted to new institutions desirous of initiating programs--or, given the relative paucity of funds available, be reserved for experimental programs such as those listed above that could point the way to more surefire effective treatments for generalizing throughout the program.

APPENDIX A

Forms, Questionnaires and Printed Instructions

Survey of Special Programs for Disadvantaged Students in Higher Education

DEFINITIONS

SPECIAL PROGRAM: To qualify as a "special program" under this definition, there should be a statement of institutional record as to the goals and objectives of the special program, with specification of target population, intervention or treatment strategies, and there should be an institutional staff member charged with responsibility for the administration and maintenance of the program. A separately budgeted (e.g., separate line item, noted in other line item, etc.) formal or structured body of activity by the institution for high school graduates (e.g., Upward Bound, Project Opportunity, etc.) or enrolled students, which is not routinely available to or appropriate for the typical entering student but directed toward the more disadvantaged student (see next definition) is usually considered to be a "special program."

DISADVANTAGED STUDENT: By "disadvantaged student" is meant a student who, by virtue of origin from an ethnic minority, a low income group as defined by the national poverty criteria (see below), or by virtue of physical handicaps restricting movement or sensory acuity, has special deficiencies of a social, cultural, or academic nature that set him apart from the regular or modal students at your institution. These are generally students who would require special resources and innovative curriculum to assure their success in the academic environment.

NATIONAL POVERTY CRITERIA*

To fall within the national poverty criteria group, a student must come from a family with annual income not exceeding the amount shown below:

Family Size	Nonfarm	Farm
1	$1,840**	$1,569
2	2,383	2,012
3	2,924	2,480
4	3,743	3,195
5	4,415	3,769
6	4,958	4,244
7	6,101	5,182

If a low-income student comes from a family with more than seven members, add $600 for each additional family member in a nonfarm family; add $500 if the family is a farm family.

The poverty criteria is generally met if the student:

1. lives in federally supported low-income public housing.
2. is part of a family where there is serious mismanagement of income so that little, if any, of such income accrues to the benefit of the student.
3. is from a family on state or federally funded welfare program.

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* *Adapted from Series P60, Number 71, Table 6, Bureau of the Census, U.S. Department of Commerce, July 1970.*

** *All dollar amounts refer to income before taxes.*

SPECIAL INSTRUCTIONS

The attached form (OE Form 160) for survey of special programs for disadvantaged students should be completed by all institutional units responding and reporting as such in the annual Higher Education General Information Survey (HEGIS) of the U. S. Office of Education. In the event that a branch campus completes the form individually or that the parent institution completes the form inclusive of branch campuses, please indicate such under item 1 of the form. The administrative officer responsible for all special programs for disadvantaged students, as defined above, should complete the items relating to such programs.

Items 1 through 5:

These items involve general institutional data of record. Data requested on opening fall undergraduate enrollment in 1971 (item 3), and on current funds expenditures for the fiscal year ending in 1971 (item 2), should agree with that provided in the 1971-72 HEGIS Survey of the U. S. Office of Education.

Item 6:

If this item is applicable to the institution, list separately each program that operates as a functional unit (i.e., that focuses on a particular target group of students, consists of one or more discrete activities, and that has a responsible "program director" assigned.) Use additional sheets of blank paper if space provided is insufficient.

If the program listed is a "bridge program" for students not yet formally enrolled in the institution, please indicate in the appropriate space.

Numbers of students served by the program, and numbers of involved faculty and staff, are requested in Full-Time ("FT"), Part-Time ("PT"), and Full-Time Equivalent ("FTE") categories.

A Full-Time student is defined as one enrolled for at least 75% of the load normally required of undergraduates.

A Part-Time student is one enrolled for less than 75% of the normal load.

"Faculty" are defined as persons with academic rank who serve the program in teaching or administrative capacities; staff members are defined as other personnel serving the program who do not hold academic rank (e.g., counselor, etc.).

A Full-Time faculty or staff member is defined as a member of administrative or academic staff devoting three-fourths or more of available work time to the program.

A Part-Time faculty or staff member is one devoting less than three-fourths time to the program.

"Full-Time Equivalent student" may be determined by the same procedure used in HEGIS. If you have not previously calculated full-time equivalent enrollment, the following method is suggested:

> ADJUSTED HEADCOUNT METHOD – Full-Time Equivalent enrollment equals the headcount of full-time students plus one-third the headcount of part-time students.

You may use the above method or any other method of calculating full-time equivalent enrollment most appropriate and/or convenient to your institution.

"Full-Time Equivalent faculty or staff" is determined by the average total man-hours per work week, devoted to the program while program is in operation, divided by 40.

Item 6 (continued):

Support in most cases will fall into one or more of the following categories: Federal, state, foundation, institutional general funds, or other (business and industry, community action groups, church, etc.).

In identifying SOURCE OF SUPPORT, please observe the following considerations:

- If support comes from federal sources, please indicate agency (e.g., OE, OEO, USDL, etc.) and if possible indicate law and title providing funds or the name of the act (e.g., Higher Education Amendments of 1968, Title I-A).
- If support comes from state appropriations, please specify whether their source is state general funds or special appropriations.
- If support comes from a foundation grant, please name the foundation.
- If support is drawn from institutional general funds, please indicate if identifiable portions come from unrestricted gifts, income on endowment, student tuition, special fees, sale of goods or services, or other sources.
- If support comes from other than federal, state, foundation, or general institutional funds, please name or otherwise identify the nature of the source.

Should program support as budgeted come from more than one source, list the several sources and show in brackets the approximate percentage of total costs from each source [e.g., "Title I-A, (50%); Ford Foundation, (50%)]

Item 7:

If item 6 is completed, this item provides space for identifying the content or nature of the special programs previously listed. Specifically, those activities or aspects of the programs that are, as a matter of record, formal emphases, and for which budget line items may exist, should be checked, and, if more than one program is listed in item 6, show by number which program(s) has(have) the feature indicated.

Item 8:

This item calls for total expenditures for special programatic attention to disadvantaged students. As such, it allows for expenditures for programs not meeting the definition of "special programs" given above, but which you consider significant.

Items 9 through 12:

These items call for "best estimates" and opinions concerning disadvantaged students and the source of support for programs for disadvantaged students at your institution.

Should you have any questions concerning the completion of this form, please call the individual listed below at the nearest office of Educational Testing Service.

Location of ETS Office	Phone	Name of Individual to Contact
Princeton, N. J.	609 921 9000	Mr. Chuck Stone
Evanston, Ill.	312 869 7700	Mrs. Theresa Strand
Los Angeles, Cal.	213 254 5236	Mrs. Celia DeLavallade
Redington Beach, Fla.	813 391 9806	Mr. John Dobbin
San Juan, P.R.	809 765 3365	Mr. Ennio Belén-Trujillo
Durham, N. C.	919 682 5683	Miss Adele Richardson
Berkeley, Cal.	415 849 0950	Mrs. Santelia Knight Johnson
Austin, Tex.	512 454 8935	Mr. Don Hood
Washington, D. C.	202 296 5930	Mr. David Nolan

OMB. No. 51-S71033
Approval expires 6/30/72

SURVEY OF SPECIAL PROGRAMS IN HIGHER EDUCATION FOR DISADVANTAGED STUDENTS

Educational Testing Service
Princeton, N.J.

Please Read Instructions Before Completing This Form

Please return by NOVEMBER 30, 1971
USE ENCLOSED ENVELOPE

---

1. Name and mailing address of this institution:

2. Total current funds expenditures for fiscal year ending 1971 *(from HEGIS Survey, OE Form 2300-4, 4/71, P. 3, line 18)*

3. Full time equivalent opening fall undergraduate enrollment, 1971 *(from line 3, column 6, and/or line 14, column 6, HEGIS, OE Form 2300-2.3-1, 3/71)*

Degree credit students ☐

Non-bachelor's degree credit students ☐

4. For what percent of undergraduate students at this institution are on-campus residential quarters available?

%

5. Admission Requirements and Standards:

A. Usual minimum requirements for undergraduate admission *(Check one)*

(1) Only ability to profit from attendance	
(2) High school graduation or equivalent	
(3) High school graduation plus some additional indication of aptitude *(grades, tests, etc.)*	
(4) Other *(Specify)*	

If (3) is checked above, select best single answer for sections B and C below.

B. Usual minimum high school standing for admission:

(1) top 1/10		(2) top 1/5		(3) top 1/4		(4) top 1/3		(5) top 1/2		(6) Below top 1/2	

C. Use of Scholastic Tests in admission

(1) Generally not required		(3) Required as supporting evidence for admission of some (not all) applicants	
(2) Required principally as a matter of record		(4) Required, and used in determining admissibility for all applicants	

OE Form 160

If this institution has one or more "Special Programs for Disadvantaged Students", as defined, complete items 6-7; otherwise skip to item 8

6. Identification of Special Programs for Disadvantaged Students.

Title or Brief Description of Program	Year Program Started	Bridge Program?		Summer School or Regular Term?		Numbers of Students Served			Numbers of Faculty			Numbers of Staff			Budgeted Costs for FY 1971-72	Source of Support *(see instructions)*
		Yes	No	SS	RT	FT	PT	FTE	FT	PT	FTE	FT	PT	FTE		
(1)																
(2)																
(3)																
(4)																
(5)																
(6)																
(7)																

7. Content or nature of special programs: *(Check all that apply to this institution, and indicate by number which program listed under item 6 herein has that feature*

Special academic counseling, guidance, or advisory assistance		Financial aid *(Check all that apply)*	
Special recruiting efforts or strategy		Loan	
Special facilities or activities for diagnosing academic difficulties		Grant	
Special tutorial service by faculty or students		Work-study	
Involvement of extra-institutional resources *(Check all that apply)*		Job placement	
Schools sending students		Guidance for graduate study	
Other colleges		Other *(Specify)*	
Community agencies, organization			
Business or industry			
Extra-curricular support *(facilitation of social life, etc.)*			
Remedial courses *(credit or non-credit)*			
Special instructional Media			
Special classroom instructional strategies			

8. Total expenditures this year for special programatic attention to disadvantaged students $ ____________________

If this amount differs from sum of "budgeted costs" in item 6, please explain

9. Considering the nature of the institution, what would be, in the opinion of the respondent, the optimal arrangement for special programatic attention to disadvantaged students at this institution in the 1972-73 academic year? *(Check one)*

Numbers of students should remain the same, with total budget of	
Numbers of students should be increased, with total budget of	
Numbers of students should be decreased, with total budget of	

10. In the opinion of the chief administrative officer of this Institution, any increased support for special programs for disadvantaged students should be sought and/or come from which of the following sources?

(Check all that apply and then rank those checked in order of importance with 1 = most important, 2 = next most important, etc.)

SOURCE	(✓)	RANK	SOURCE	(✓)	RANK
Institutional funds as follows:			Existing federal authorizations, with increased appropriations		
General			New federal legislation		
Tuition and fees			State general funds		
Gifts			New state legislation		
Endowment income			Other *(Specify)*		
Other					
Foundations *(local or national)*					

11. Best estimate of proportion of current undergraduate population at this institution who come from families with annual income less than the national poverty criterion *(see instructions)*

0-5%	☐	6-10%	☐	11-15%	☐	16-20%	☐	21-25%	☐	26-50%	☐	51% or more	☐

12. Of those disadvantaged students entering this institution, what percent is estimated to

(1) Graduate from this institution	%	(2) Transfer to another institution	%	(3) Continue for graduate studies at any institution	%

13. Comment *(e.g., any experience with disadvantaged students; recommendations as to federal policy and program; special institutional philosophy and policy re disadvantaged; relevant activities not fitting under definitions or categories provided, etc.)*

14. Name of person completing this questionnaire

Name

Title

Date

Please return to:
EDUCATIONAL TESTING SERVICE
501 Willard Street,
Durham, North Carolina 27701

INSTRUCTIONS

Survey of Selected Institutions' Experience with Disadvantaged Students

PLEASE READ CAREFULLY BEFORE COMPLETING FORM

STATEMENT OF INTENT:

This Survey (OE Form 192-2 (OPPE) is one of the major sources of data in a national study examining experience with and methods of facilitation of "disadvantaged" students by institutions of post-secondary education. From the outset, it has been realized that there are at least two basic philosophical positions for dealing with disadvantaged students within institutions. *The first* one which typifies much current Federal practice, is the establishment of *special* programs and activities aimed exclusively at such students in order to ease or facilitate their adjustments to the various pressures of the institution. *The second*, in some cases due to state law stipulation, is the adaptation of long-standing institutional programs for students in general so that they also serve any special needs of disadvantaged students (this may be with or without special procedures for recruitment and/or admission). Additionally, there are many institutions which blend, to varying degrees, both of the philosophical approaches on the same campus.

Each of the basic approaches has merits as well as drawbacks; and though the present study may seem overly concerned with approaches of the first sort, this is due *not* to any predisposed value judgement of the relative worth of the two approaches but rather to the fact that many Federally funded approaches are of that sort. Although the current study was prompted by the need to examine the effectiveness of the "Special Programs" approach defined by the Higher Education Amendments of 1968, there is concern with any and all approaches by institutions in dealing with the "disadvantaged" student. Only in this context can any one approach be effectively examined. It is therefore critical to the study to determine the diversity of institutional philosophies, as well as institutional experience with merits and drawbacks of whatever approaches are taken by American colleges and universities. Since some of the implications from this study may be far-reaching, it is hoped that you will be as accurate as possible in the data which you provide and as critical as possible of any judgements which you make.

GENERAL INSTRUCTIONS: The survey consists of three parts. Part I–General Institutional Information–requests information about the recent historical experience of the *institution as a whole* with "disadvantaged" students (see definitions below). The most appropriate office to complete Part I of the survey will vary from institution to institution, but in general may consist of the office responsible for the annual Higher Education General Information Survey (HEGIS).

Part II of the survey is specific to *special* programs, services, or activities that may be provided by the institution, and a separate copy of this part should be filled out by each person responsible for a service, activity or program specially targeted for and serving the disadvantaged at your institution. Enclosed herewith is a copy of the list of "Special Programs for Disadvantaged Students" provided by your institution in response to an earlier census of such programs (OE Form 160). Separate copies of Part II of the survey have been included for each program on that list as well as five additional copies. Should more copies be needed, please Xerox them.

OE FORM 192-2 (OPPE)

Part III of the survey is specific to general programs, services, or activities available to all students but which have special relevance in fulfilling needs of disadvantaged students and which would thus be particularly recommended for them. A separate copy of this part should be completed by each person responsible for any such program, service, or activity at your institution. Five copies of Part III have been included; should more copies be needed, please Xerox them.

All items of the survey should be completed with the most accurate figures currently available. In some instances, however, when specific information items are not available, "best estimates" may be required. When figures given are, in fact, estimates, this should be noted as provided for by the form.

The president of each institution agreeing to participate in this survey has appointed an institutional representative, to serve as liaison with the research team, who is responsible for the transmission of these forms to individuals. Questions about the completion of the forms may be referred to this person, or raised with either of the ETS co-directors of the study by phone.

Your institutional representative is: Dr. Patrick Basilice
Director, Special University Programs

The co-directors of the survey are:

Mr. Chuck Stone, Trenton, N. J. Phone: 609-392-1345
Mr. J. A. Davis, ETS, Durham, N. C. Phone: 919-682-5683

For each form enclosed (i.e. Part I and the several copies of Part II and Part III), separate postpaid return envelopes are provided. As forms are completed, they should be returned directly to the Durham Office of ETS by the individual completing the form. The information provided on forms returned directly to Durham will be pooled, and will not be associated in any report, to either the institution or the U. S. Office of Education, with any individual and individual program, or individual institution. Program directors wishing to share their reports with others at their institution are, of course, free to do so.

SPECIFIC INSTRUCTIONS (PART I):

Section A: The items of Section A are concerned with general institutional information concerning students and faculty. Most items in this Section require, in addition to total figures, a breakdown of data for students (or faculty) by "Minority group", "Physically handicapped", and "poverty level". "Poverty level" and "Physically handicapped" are defined below (see Definitions).

Section B:

Items 1 through 4: Federal guidelines for identifying the "disadvantaged" student have been used in the definitions given below. Some institutions, however, operate under a broader definition of "disadvantagement". If, in fact, this is the case at your institution, these items allow for the specification of the institutional specific definition of disadvantaged used by your institution.

Item 5: This item calls for a listing and identification of special services, programs and activities at your institution *specifically targeted for disadvantaged students as defined (see Definitions) by Federal guidelines.* The director of each service, program or activity listed here should complete a copy of Part II of the Survey.

Item 6: This item should be completed *only* in the event that the institution has special programs, services, or activities for students *considered disadvantaged by the institution* (but who do not meet the federal guideline definition of disadvantaged students) as reported in items 1 through 4 above. The information called for in this item is the same as that called for in item 5. The director of each service, activity, or program listed in this item should complete a copy of Part II of the Survey.

Item 7: Some services, programs, and activities at the institution for students in general (rather than for disadvantaged students specifically) may, nevertheless, be of particular value and therefore recommended for the disadvantaged. Such services, etc. should be listed here. Directors of services, activities, and programs listed in this item should complete a copy of Part III of the Survey.

Items 8 through 18: These items concern evaluative practices and results concerning the programs listed in items 5 through 7, as well as questions concerning specific aspects of institutional practices with the disadvantaged.

SPECIFIC INSTRUCTIONS (PART II):

This part of the survey (a separate copy of which is to be completed by the director of each of the special activities, services, or programs listed in Items 5 and 6 of Section B, Part I of the Survey) contains items that are specific to individual special programs at the institution. The items are self-explanatory.

SPECIFIC INSTRUCTIONS (PART III):

This part of the survey (a separate copy of which is to be completed by the director of each of the general activities, services, or programs listed in Item 7 of Section B, Part I of the Survey)contains items that are specific to individual general programs at the institution. The items are self-explanatory.

DEFINITIONS

DISADVANTAGED STUDENT: By "disadvantaged student" is meant a student who comes from a low income family as defined by the national poverty criteria (see below), or who is physically handicapped. This is a student who would generally require special resources, innovative curriculum, or special instructional strategies to assure his success in meeting the academic demands of the college or university.

*NATIONAL POVERTY CRITERIA**

To fall within the national poverty criteria group, a student must come from a family with annual income not exceeding the amount shown below:

Family Size	Nonfarm	Farm
1	$1,840**	$1,569
2	2,383	2,012
3	2,924	2,480
4	3,743	3,195
5	4,415	3,769
6	4,958	4,244
7	6,101	5,182

If a low-income student comes from a family with more than seven members, add $600 for each additional family member in a nonfarm family; add $500 if the family is a farm family.

The poverty criteria is generally met if the student:

1. lives in federally supported low-income public housing.
2. is part of a family where there is serious mismanagement of income so that little, if any, of such income accrues to the benefit of the student.
3. is from a family on a state or federally funded welfare program.

PROGRAM, SERVICE OR ACTIVITY: By "program", "service", or "activity" is meant any formal or structured body of activity designed specifically to provide easement of any special student needs of an academic, social or personal nature.

SPECIAL PROGRAM: By "special program" is meant any program, service, or activity *specifically designed, tailored, or targeted for disadvantaged students.* It will usually consist of a number of complementary activities (counseling, tutoring, financial aid, etc.), and be an assigned responsibility of a program director, operating within a discrete budget.

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*Adapted from Series P60, Number 71, Table 6, Bureau of the Census, U. S. Department of Commerce, July 1970

**All dollar amounts refer to income before taxes.

Institution Code
No.________________

OMB # 51-S-72021
APPROVAL EXPIRES JUNE 30, 1972

SURVEY OF SELECTED INSTITUTIONAL EXPERIENCE WITH DISADVANTAGED STUDENTS

Educational Testing Service
Princeton, N. J.

PART I: INSTITUTIONAL INFORMATION

PLEASE READ INSTRUCTIONS BEFORE COMPLETING THIS FORM

Name of Person Completing This Form
____

(Title)
____

(Date)
____

Please return by June 1, 1972
Use Enclosed Envelope

OE FORM 192-2(OPPE)

SECTION A: GENERAL INSTITUTIONAL INFORMATION

1. Enrollment of Disadvantaged and Minority Groups
(Enter full time equivalent undergraduate enrollment figures. After each numerical entry, circle "A" if the figure given is an ACTUAL count or "E" if the figure is an ESTIMATE.)

Academic Year	Total Undergraduate Enrollment	Number of Students by Type Indicated						
		American Indian	Black	Mexican American	Puerto Rican	Other Racial[1] or Ethnic Minority	Poor[2] White	Physically[3] Handicapped
1967-68	E A	E A	E A	E A	E A	E A	E A	E A
1968-69	E A	E A	E A	E A	E A	E A	E A	E A
1969-70	E A	E A	E A	E A	E A	E A	E A	E A
1970-71	E A	E A	E A	E A	E A	E A	E A	E A
1971-72	E A	E A	E A	E A	E A	E A	E A	E A

1A. Please provide any qualifications or elaborations you feel are necessary for understanding data provided in Item #1:

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1. "Other racial minorities" may include such groups as orientals, students of Latin origin other than Mexico or Puerto Rico, Etc.

2. "Poor White" are white students from families within the Federal Poverty Classification. See definition page of instructions.

3. "Physically Handicapped" Students are students of any racial or ethnic origin, with handicaps of sufficient severity that special provisions must be made to accomodate them. Such students should be excluded from counts provided for other types of students, but not from total enrollment figures.

2. Numbers of Applicants for admission as freshmen.
(After each numerical entry, circle "A" if the figure given is an ACTUAL count, or "E" if the figure is an ESTIMATE.

Academic Year	Total Number of Applicants[4]	American Indian	Black	Mexican American	Puerto Rican	Other Racial or Ethnic Minority[5]	Poor White[6]	Physically Handicapped[7]
1967-68	E A	E A	E A	E A	E A	E A	E A	E A
1968-69	E A	E A	E A	E A	E A	E A	E A	E A
1969-70	E A	E A	E A	E A	E A	E A	E A	E A
1970-71	E A	E A	E A	E A	E A	E A	E A	E A
1971-72	E A	E A	E A	E A	E A	E A	E A	E A

2A. Please provide any qualifications or elaborations you feel are necessary for understanding or properly interpreting data:

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[4] An "applicant" is defined as an individual completing all forms and providing all credentials required for admission as a freshman.

[5] For definition, see footnote (1), page 2

[6] For definition, see footnote (2), page 2

[7] For definition, see footnote (2), page 2

3. Average Admissions Test Scores (SAT, ACT, etc.) of enrolled Freshmen. (Indicate test score reported by circling appropriate entry in the column labeled "Type of Test and Score." After each numerical entry, circle "A" if the figure given is an ACTUAL computation, or "E" if the figure is an ESTIMATE.)

Academic Year (1)	Type of Test and Score (2)	All Enrolled Freshmen (3)	Scores for freshmen from the following groups. Minority Groups[8] (4)	All Poverty Level Freshmen[9] (5)	Physically Handicapped[10] (6)
1967-68	______	______(E) (A)	______(E) (A)	______(E) (A)	______(E) (A)
	______	______(E) (A)	______(E) (A)	______(E) (A)	______(E) (A)
1968-69	______	______(E) (A)	______(E) (A)	______(E) (A)	______(E) (A)
	______	______(E) (A)	______(E) (A)	______(E) (A)	______(A) (E)
1969-70	______	______(E) (A)	______(E) (A)	______(E) (A)	______(E) (A)
	______	______(E) (A)	______(E) (A)	______(E) (A)	______(E) (A)
1970-71	______	______(E) (A)	______(E) (A)	______(E) (A)	______(E) (A)
	______	______(E) (A)	______(E) (A)	______(E) (A)	______(E) (A)
1971-72	______	______(E) (A)	______(E) (A)	______(E) (A)	______(E) (A)
	______	______(E) (A)	______(E) (A)	______(E) (A)	______(E) (A)

3A. Please provide any qualifications or elaborations you feel are necessary for understanding data provided in Item # 3. Be sure to enter in column 2 the kind of test and score provided e.g., "SAT-V", "ACT Composite", etc.

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[8] "Minority groups" means all students of any racial or ethnic minority - Black, Mexican-Americans, etc. If data requested are available on only one of several minorities, give that information and indicate which group or groups in space 3A above.

[9] "All poverty level freshmen" includes all students -- racial minorities and poor white -- that fall within the poverty criteria in the Instructions.

[10] For definition, see footnote (3) page 2, or the Instructions.

4. Average High School Rank in Class or Grade Point Average of Enrolled Freshmen.
(After each numerical entry, circle A if figure given is an ACTUAL computation, or "E" if the figure is an ESTIMATE.)

Academic Year	Total Entering Freshmen	Scores for freshmen from the following groups		
		Minority Groups[11]	All Poverty Level Freshmen[12]	Physically Handicapped[13]
1967-68	________(E)(A)	________(E)(A)	________(E)(A)	________(E)(A)
1968-69	________(E)(A)	________(E)(A)	________(E)(A)	________(E)(A)
1969-70	________(E)(A)	________(E)(A)	________(E)(A)	________(E)(A)
1970-71	________(E)(A)	________(E)(A)	________(E)(A)	________(E)(A)
1971-72	________(E)(A)	________(E)(A)	________(E)(A)	________(E)(A)

4A. Please provide any qualifications or elaborations you feel are necessary for understanding or interpreting data provided, including identification of figure given (e.g. "grade average with A=4, B=3, etc." or "rank transmuted to standard score scale")

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11 For Definition see footnote (8) page 4.
12 For Definition see footnote (9) page 4.
13 For Definition see footnote (3) page 2, or the instructions.

5. Student Attrition Rates: Proportion of students, total group (and of the several types) entering in the year given, but withdrawing for any reason before beginning their second year of study. After each numerical entry, circle "A" if the figure given is an ACTUAL computation, or "E" if the figure is an ESTIMATE.

Class entering in	Proportion of total class withdrawing before beginning second year of study	American Indian	Black	Mexican American	Puerto Rican	Other Racial or Ethnic Minority[14]	Poor White[15]	Physically Handicapped[16]
1967-68	________(E)	____(E)	____(E)	____(E)	____(E)	____(E)	____(E)	____(E)
	________(A)	____(A)	____(A)	____(A)	____(A)	____(A)	____(A)	____(A)
1968-69	________(E)	____(E)	____(E)	____(E)	____(E)	____(E)	____(E)	____(E)
	________(A)	____(A)	____(A)	____(A)	____(A)	____(A)	____(A)	____(A)
1969-70	________(E)	____(E)	____(E)	____(E)	____(E)	____(E)	____(E)	____(E)
	________(A)	____(A)	____(A)	____(A)	____(A)	____(A)	____(A)	____(A)
1970-71	________(E)	____(E)	____(E)	____(E)	____(E)	____(E)	____(E)	____(E)
	________(A)	____(A)	____(A)	____(A)	____(A)	____(A)	____(A)	____(A)

5A. Please provide any qualifications or elaborations you feel are necessary for understanding or interpreting data provided in Item #5.

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14 For definition, see footnote (1), page 2
15 For definition, see footnote (2), page 2
16 For definition, see footnote (3), page 2

6. What are the major reasons for attrition of disadvantaged students? Please specify any differences that may exist among different disadvantaged student groups at your institution.

7. Is there any probable cut-off point in the number or percentage of disadvantaged students your college can absorb with comparative ease into the student body?

8. Numbers of Administrators and Faculty. (Use full-time equivalent figures.)

Rank	Academic Year	Numbers Employed					
		Total	Black	Mexican American	Puerto Rican	American Indian	Physically Handicapped
Academic Deans and Above	1967-68 1968-69 1969-70 1970-71 1971-72						
Other Administrators (excluding department heads)	1967-68 1968-69 1969-70 1970-71 1971-72						
Counselors	1967-68 1968-69 1969-70 1970-71 1971-72						
Full Professors (not already listed)	1967-68 1968-69 1969-70 1970-71 1971-72						
Associate Professors (not already listed)	1967-68 1968-69 1969-70 1970-71 1971-72						
Assistant Professors (not already listed)	1967-68 1968-69 1969-70 1970-71 1971-72						
Instructors and Other Teaching Staff (not already listed)	1967-68 1968-69 1969-70 1970-71 1971-72						

9. Have there been any major *events, activities,* or *policy changes* on your campus during the past five years that have affected attitudes of administration, faculty, or students toward minority groups, students from poverty levels, or the physically handicapped? If so, describe briefly.

10. Of all undergraduate students currently enrolled at this institution, please provide the proportions of students that come from families of each of the income categories below.

Family Income	Proportion in Category
$0-1999	_______%
$2000-2999	_______%
$3000-4499	_______%
$4500-5999	_______%
$6000-7499	_______%
$7500-9999	_______%
Over $10,000	_______%

SECTION B: PROGRAMS AND ACTIVITIES SERVING THE DISADVANTAGED*

1. Are there students at your institution, in addition to those defined as "disadvantaged" in the INSTRUCTIONS, whom the educational policy and practice *at your institution* define as *disadvantaged* (or as requiring special remediation, support, or other treatment to have a reasonable chance to perform satisfactorily)?

   NO______(if answer is NO, skip to next page)

   YES_____

2. How does your institutional policy and practice define such "disadvantagement"?

3. Are these disadvantaged students (by your definition) recognized, identified as such, and provided any special educational treatment?

   NO______(if answer is NO, skip to note preceding Question 5 and to Question 5)

   YES_____

4. How are such students identified?

---

* Some programs previously specified as existing at your institution are listed on the attached sheet.

Note: The next several questions provide for listing a number of different kinds or levels of programs or services for disadvantaged students. Specifically: Question 5 asks for "Special Programs" designed specifically for disadvantaged students (see definitions, page 4 of instructions), with disadvantaged students defined as in the instructions. Question 6 asks for information about other similar programs designed specifically for disadvantaged students *as defined by your institution, and if this definition differs substantially from that in the instructions.* Question 7 asks for programs designed for students in general but which *have been adapted* for disadvantaged students (e.g., a general counseling or tutoring program, a work-study program, etc.)

5. Inventory of services, programs and activities *specifically targeted or established for disadvantaged students* (as *specifically defined* in INSTRUCTIONS).

NAME OF ACTIVITY*	PERSON RESPONSIBLE Name, Title, Institutional Status (Dean, Professor, Associate Professor, etc.)	REPORTS TO (Pres., Vice-Pres., etc.)

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*The program director of *each* program named in this item should complete a copy of Part II of this survey. Several copies of Part II have been enclosed for your convenience, if additional copies are needed, please Xerox.

6. Inventory of services, programs and activities specifically targeted or established for disadvantaged students *as defined by your institution (Item 2, Section B above), and not listed under Item 5, Section B above.* Complete this question only if answer to Item 3, Section B above is YES.

NAME OF ACTIVITY*	PERSON RESPONSIBLE Name, Title, Institutional Status	REPORTS TO (Pres., Vice-Pres., etc.)

* The program director of each program named in this item should complete a copy of Part II of this survey. Several copies of Part II have been enclosed for your convenience; if additional copies are needed, please Xerox.

7. Inventory of services, programs, and activities of the college, not previously listed, which are available to students in general and which have been adapted to accomodate disadvantaged students. (as specifically defined in the INSTRUCTIONS)

NAME OF ACTIVITY*	PERSON RESPONSIBLE Name, Title, Institutional Status	REPORTS TO (Pres., Vice-Pres., etc.)

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* The program director of *each* program named in this item should complete a copy of Part III of this survey. Several copies of Part III have been enclosed for your convenience; if additional copies are needed, please Xerox.

8. In reference to programs listed in Items 5 through 7 above, what criteria have been used at your institution in any known studies in the last five years to evaluate effectiveness of programs for disadvantaged students? (Check *all* that apply in each column, and ADD other criteria used.)

FOR WHICH PROGRAM OF THOSE LISTED?
(identify by brief title, as listed in items 5-7)

A. Student retention rate . . . . ______________________
____

B. Student academic success (honors, etc.) . . . . . ______________________
____

C. Absorbtion into modal student population . . . ______________________
____

D. Participating students' perceptions of programs . ______________________
____

E. Non-participating and non-disadvantaged students' perceptions of programs . . . . ______________________
____

F. Faculty and staff perception of programs . . . ______________________
____

G. Performance on standardized tests . . . . ______________________
____

H. SPECIFY other criteria used by this institution in general to evaluate student success. . . . . . . ______________________

____

____

____

9. What, if any, special considerations are given handicapped, minority or poverty level students by this institution? (Check *all* that apply in each column, and ADD other considerations specific to this institution.)

	Handicapped	Minority	Students in Poverty Classification
A. Lower minimum or "cut-off" on admissions test scores or other indices	☐	☐	☐
B. Waiver of requirement for one or more admissions credentials	☐	☐	☐
C. Waiver of application fee	☐	☐	☐
D. Provision of Summer or other pre-college transitional program (e.g., Upward Bound, etc.)	☐	☐	☐
E. Special effort to locate and attract disadvantaged students (describe effort briefly)			
______________________	☐	☐	☐
______________________	☐	☐	☐
F. *Specify* other considerations:			
______________________	☐	☐	☐
______________________	☐	☐	☐

10. Listed below are several student services or programs offered by many colleges and universities. For each service listed, please do the following:

1) In column I, mark whether or not the service is provided at your institution.
2) In column II, mark the type students (disadvantaged or students in general) for whom the service was initially created or designed to serve.
3) In column III, mark the types of students who participate or make use of the service most often.
4) In column IV, inidicate any changes made in last five years toward the more effective accommodation of disadvantaged students (adding minority staff, addition of special facilities, etc.)

		I Provided Here? (If *Yes* Complete Columns II, III, & IV		II Originally Designed for What Type Student?			III Most Frequent Participants?			IV Changes in last five years for accommodation of disadvantaged	
		No	Yes	Students in Gen.	Disadv'ed	Both	Students in Gen.	Disadv'ed	Both	Date	Nature of Change
	Tutoring by other students	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]		
2.	Tutoring by faculty	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]		
3.	Professional counseling for personal problems	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]		
4.	Professional counseling on job or career choices	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]		
5.	Professional counseling on academic problems	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]		
6.	Professional counseling on financial or budgeting problems	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]		
7.	Student loan	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]		
8.	Scholarships or grants	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]		
9.	Work-study programs	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]		
10.	Student Health Services	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]		
11.	Help in choosing courses and planning program of study	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]		
12.	Independent study	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]		
13.	Honors program	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]		
14.	Cooperative Work Programs	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]		

10. Continued	I Provided Here? (IF *Yes* Complete Columns II, III, & IV		II Originally Designed for What Type Student?			III Most Frequent Participants?			IV Changes in last five years for accommodation of disadvantaged	
	No	Yes	Students In Gen.	Disadv'ed	Both	Students In Gen.	Disadv'ed	Both	Date	Nature of change
15. Assistance in finding housing	☐	☐	☐	☐	☐	☐	☐	☐		
16. Assistance in finding part-time employment	☐	☐	☐	☐	☐	☐	☐	☐		
17. Reduced course load	☐	☐	☐	☐	☐	☐	☐	☐		
18. Courses in cultural heritage of minority groups	☐	☐	☐	☐	☐	☐	☐	☐		
19. Courses or programs in reading improvement	☐	☐	☐	☐	☐	☐	☐	☐		
20. Courses or programs in improving writing	☐	☐	☐	☐	☐	☐	☐	☐		
21. Courses or activities toward improving study efficiency	☐	☐	☐	☐	☐	☐	☐	☐		
22. Courses or programs toward improving number skills	☐	☐	☐	☐	☐	☐	☐	☐		
23. Instruction or advice on how to do well on tests	☐	☐	☐	☐	☐	☐	☐	☐		
24. Freeing faculty time for special attention to students	☐	☐	☐	☐	☐	☐	☐	☐		
25. Counseling toward attending graduate school	☐	☐	☐	☐	☐	☐	☐	☐		
26. Help in choosing a graduate school	☐	☐	☐	☐	☐	☐	☐	☐		
27. Job placement	☐	☐	☐	☐	☐	☐	☐	☐		
28. Special residence house for minority group(s)	☐	☐	☐	☐	☐	☐	☐	☐		
29. Special place for minority group social activity	☐	☐	☐	☐	☐	☐	☐	☐		

11. Which programs, activities, etc. (if any of all those heretofore listed) have been *especially* helpful or effective for disadvantaged students? (If there are more than three especially helpful programs, check here________, and use separate sheet for answer.)

Name of Activity	Reason Effective
A. ____________________	______________________________
B. ____________________	______________________________
C. ____________________	______________________________

12. Which programs or activities (if any) have not been as effective or helpful for disadvantaged students as originally anticipated? (If there are more than three such programs or activities, check here________and use separate sheet for answer.)

Name of Activity	Reason Not So Effective
A. ____________________	______________________________
B. ____________________	______________________________
C. ____________________	______________________________

13. Name and describe any programs for disadvantaged students that once existed at your institution but have been discontinued.

Name of Activity	Description	Reason for Discontinuing

14. Compared to regular students here, what special recruiting procedures are used to attract disadvantaged students?

15. What special considerations and services operate at this institution to encourage students who leave (drop-out) to re-enter and continue their education? If different for disadvantaged students, please specify differences.

16. What *special* services are offered at this college to encourage and counsel disadvantaged students to go on to graduate or professional schools?

17. Describe your institution's system of financial aid and policy for awarding such aid to disadvantaged students. If different from physically handicapped students, please note the differences.

18. Of total funds available to the institution for scholarships and grants-in-aid, what proportion goes to "disadvantaged" students as defined by the instructions?_______% What is the total dollar amount of these scholarships and grants-in-aid awarded in the current year to disadvantaged students? $____________

19. In terms of changes in policy and practices at your institution what has been the impact of both disadvantaged *students* and *programs for the disadvantaged* on the total institution?

20. Does your institution have any special program designed to locate, attract, or facilitate the adjustment of *veterans* to your campus? If so, describe this program briefly.

21. List the formal or informal student organizations for minority or physically handicapped students on this campus.

22. What roles do the student organizations, listed in 21, play in helping these students adjust to college and campus life?

Institution Code
No. ______________

OMB # 51-S-72021
APPROVAL EXPIRES JUNE 30, 1972

SURVEY OF SELECTED INSTITUTIONAL EXPERIENCE WITH DISADVANTAGED STUDENTS

PART II: DETAILED INFORMATION ON SPECIAL PROGRAMS FOR DISADVANTAGED STUDENTS

Educational Testing Service
Princeton, J. N.

PLEASE READ INSTRUCTIONS BEFORE COMPLETING THIS FORM

Please Return By June 1, 1972
Use Enclosed Envelope

Name and Title of Person Completing this Form:

____
Name

____
Title

1. Title of program: ______________
2. What is the current annual budget for the program? $ ______________
3. For what types or groups of students is this program designed? ______________
4. Briefly, how would you state the present objectives of the program?
5. Date (month, year) program started: ______________
6. Date (month, year) full or partial *federal* support (if any) for program was first received: ______________
7. Number of disadvantaged students in the program, by class:

Year	Fresh.	Soph.	Jun.	Sr.	Grad.
1971-72					
1970-71					
1969-70					

* A separate copy of this part of the survey is to be completed by the director of *each* program or activity for disadvantaged students listed in Part I, Section B, Items 5 and 6.

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8. Of the present students in the program, please estimate the proportion of students from families of each income category below:

Family Income	Proportion In Category	Family Income	Proportion In Category
$2000 or less	____________	$6000-7499	____________
$2000-2999	____________	$7500-9999	____________
$3000-4499	____________	over $10,000	____________
$4500-5999	____________		

9. Names, titles, duties of program staff (including director):

	Name	Title	Duties	% of time Assigned to Program
(1)	____________	____________	____________	____________
(2)	____________	____________	____________	____________
(3)	____________	____________	____________	____________
(4)	____________	____________	____________	____________
(5)	____________	____________	____________	____________
(6)	____________	____________	____________	____________
(7)	____________	____________	____________	____________
(8)	____________	____________	____________	____________
(9)	____________	____________	____________	____________
(10)	____________	____________	____________	____________

10. How is student eligibility for the program determined?

11. If more eligible applicants than can be accommodated are available, how is selection accomplished?

12. Compared to regular students, are any special *recruiting* procedures used to locate, identify, and attract students to the program?

13. What is the policy, if any, for determining when students are shifted from special program status to regular status - that is, when they are "weaned" from the program?

14. Are regular students ever shifted into the special program? If so, under what circumstances?

15. What are the essential elements of the program? (Check as many as apply, then give whatever further information may be necessary to describe briefly each program element.

Program Element	Additional Description
(1)___ Financial assistance	
(a) ___ Grants or scholarships	____________________
(b) ___ Loans	____________________
(c) ___ Guaranteed jobs (during the school year)	____________________
(d) ___ Summer jobs	____________________
(e) ___ Other financial aid (describe)	____________________
(2)___ Pre-admission courses	____________________
(3)___ Reduced course load	____________________
(4)___ Remedial courses (credit)	____________________
(5)___ Remedial courses (without credit)	____________________
(6)___ Other special courses or curricula (for credit)	____________________
(7)___ Special probation or expulsion policies	____________________
(8)___ Special tutoring services	____________________
(9)___ Special counseling services	____________________

(10)____Ethnic studies curricula ______________________________

(11)____Waiver of particular regular college academic requirements ______________________________

____

Other Program Elements

(12)____________________ ______________________________

(13)____________________ ______________________________

(14)____________________ ______________________________

16. What are the major items (list up to five items) in the annual budget for the program (e.g., staff salaries, transportation, equipment rental, etc.), and approximately what proportion of the current budget is allocated to each?

Budget Item	Approx. Percentage of Total Program Budget
(1)______________________________	__________%
(2)______________________________	__________%
(3)______________________________	__________%
(4)______________________________	__________%
(5)______________________________	__________%

17. What financial support other than that from the *regular institutional budget* can you identify that helps support current fiscal year program activity?

Source of Funds	Amount, Current Year
______________________________	______________
______________________________	______________
______________________________	______________

18. What policy, if any, is there regarding waiver of college tuition or various fees for students in the program?

19. What criteria do you use (or feel should be used) to evaluate program effectiveness?

20. What has been done or is planned to evaluate the effectiveness or impact of the program? (Give titles and authors of any completed studies, reports, etc., *and include a copy of any that are available*)

21. How many disadvantaged students were served during the first year of the current program?

22. Approximately how many disadvantaged students were enrolled at your institution during the year immediately prior to establishment of your special program?______________

23. What were some of the forces that brought the present program into existence?

    (1) Internal campus forces (e.g., minority student pressures, leadership from key staff, etc.):

    (2) External stimuli (state, federal aid programs, pressures from off-campus minority organizations, foundation grant, other campuses setting up comparable programs, etc.):

24. What have been the main factors contributing to the development of the program since its inception?

    (1) Internal campus factors:

    (2) External factors:

25. What problems has the program had *within* the college or university (lack of cooperation or support from other units, bureaucratic cautions or constraints, areas of greatest resistance to program, lack of support from students involved in the program, etc.)?

26. What problems has the program had in its relations with groups and interests *outside* the campus community (criticism from citizen groups, the program's image in the off-campus community, etc.)?

27. Have program elements been eliminated or reduced in size because of budget cutbacks? If so, describe cutbacks, and comment on their impact.

28. Were there particular program innovations planned but never initiated? If so, what were they, and what factors kept these innovations from getting off the ground?

Planned Innovations	Reason Innovation Never Initiated

29. In your judgment, what program changes are needed now to improve the effectiveness of the program?

30. In your experience and judgment, how could the needed changes be brought about?

31. How much of a budget increase would you need to have the program achieve optimum effectiveness?

_________________ For what would you use this increase?

32. What pitfalls or possible errors would you caution others to avoid in setting up a program such as this one?

33. Are there other units or activities at the institution but outside your program activities (counseling center, reading clinic, etc.) that make contributions to the program? If so, please fill in the information below.

Name of Unit	Number of People in unit working with special program	Approx. total weekly contact hours with students in the program
(1) ________	________	________
(2) ________	________	________
(3) ________	________	________

34. In your opinion, what are the major problems the disadvantaged student has in general *at your institution?*

35. Do many disadvantaged students in your program participate to any extent in student organizations or "movement" groups? If so, what are the groups, and what is the effect of this participation on them and on your program?

Name of Organization or Group	Effect on Student and/or Program

36. (For programs supported in whole or in part by federal funds): What changes in the federal guidelines covering the program do you feel would improve the attractiveness, efficiency, or impact of the program?

37. Is there any other information you would add to provide a more thorough understanding of the development, present status, and future prospects of the program?

38. Looking at the program as a whole over its span of existence on this campus: What do you feel are its greatest successes or most positive impact on the institution?

Thank you for the time and effort given to filling out this form.

Institution Code
No.____________________

OMB # 51-S-72021
APPROVAL EXPIRES JUNE 30, 1972

SURVEY OF SELECTED INSTITUTIONAL EXPERIENCE WITH DISADVANTAGED STUDENTS

PART III: DETAILED INFORMATION ON GENERAL PROGRAMS WITH SPECIAL RELEVANCE FOR DISADVANTAGED STUDENTS

Educational Testing Service
Princeton, N. J.

PLEASE READ INSTRUCTIONS BEFORE COMPLETING THIS FORM

Please Return By June 1, 1972
Use Enclosed Envelope

Name and Title of Person
Completing This Form:

____
Name

____
Title

1. Title of program:____________________
2. Brief description of program or services:____________________

____

____

3. What is the current annual budget for the program? $__________
4. What portion of this total budget is spent for disadvantaged students?__________%
5. What are the major items (list up to five) in the annual budget for the program (e.g., staff salaries, transportation, equipment rental, etc), approximately what proportion of the current budget is allocated to each, and approximately what proportion of the budget item is used for disadvantaged students?

Budget Item	Approx. Percentage of Total Program Budget	Approx. Percentage of Item used for disadvantaged
(1)__________	_____%	_____%
(2)__________	_____%	_____%
(3)__________	_____%	_____%
(4)__________	_____%	_____%
(5)__________	_____%	_____%

6. What financial support other than that from the regular institutional budget can you identify that helps support current fiscal year activity?

Source of Funds	Amount, current year

7. Have program elements been eliminated or reduced in size because of budget cutbacks? If so, describe cutbacks, and comment on their impact.

8. What types of students currently use this service or program?

9. What is the approximate number of students served?

10. What proportion of this number are considered “disadvantaged students?

11. What changes, innovations, augmentations, staff additions, etc. have been affected in this program in the last five years to more adequately deal with problems unique to, or expecially critical for, disadvantaged students? (for each increment listed, indicate approximate additional cost incurred)

12. (For programs supported in whole or in part by federal funds): What changes in the federal guidelines covering the program do you feel would improve the attractiveness, efficiency, or impact of the program (for students in general and for disadvantaged students particularly)?

13. In your judgment, what program changes are needed now to improve the effectiveness of the program (for students in general and for disadvantaged students particularly)?

14. In relation to the service provided by your program, what are specific problems encountered in dealing with disadvantaged students?

15 What are some of the specific problems the disadvantaged student has at your institution (not already specified)?

16. What criteria are used at your institution to evaluate the effectiveness of your program?

17. Is there any other information you would add to provide a more thorough understanding of the development, present status, and future prospects of the program?

18. Looking at the program as a whole over its span of existence on this campus: What do you feel are its greatest successes or most positive impact on the institution?

Thank you for the time and effort given to filling out this form.

12. (For programs supported in whole or in part by federal funds): What changes in the federal guidelines covering the program do you feel would improve the attractiveness, efficiency, or impact of the program (for students in general and for disadvantaged students particularly)?

13. In your judgment, what program changes are needed now to improve the effectiveness of the program (for students in general and for disadvantaged students particularly)?

14. In relation to the service provided by your program, what are specific problems encountered in dealing with disadvantaged students?

15 What are some of the specific problems the disadvantaged student has at your institution (not already specified)?

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17. Is there any other information you would add to provide a more thorough understanding of the development, present status, and future prospects of the program?

18. Looking at the program as a whole over its span of existence on this campus: What do you feel are its greatest successes or most positive impact on the institution?

Thank you for the time and effort given to filling out this form.

OMB # 51-S-72021
APPROVAL EXPIRES JUNE 30, 1972

Survey of College Students and Special Programs

Administered by Educational Testing Service, Princeton, New Jersey, Spring, 1972, as part of a National Survey of Special Programs provided by American institutions of higher education.

Please answer all items to the best of your knowledge and remember that there are no right or wrong answers to the items of this survey.

MARKING INSTRUCTIONS

Your answers to this questionnaire should be recorded in the booklet.

For each item indicate your answer (or answers) by filling in the appropriate brackets. Please use either ball-point pen or a soft lead pencil in recording your answers.

Example:

	Yes	No
Are you a college student?	[■]	[2]

If you make a mistake in marking, or if you change your mind about an answer you gave, indicate the correction by putting an X through the mistaken answer and then filling in the brackets corresponding to the corrected answer.

Example:

	Yes	No	Sometimes
Do you sleep at night?	☒	[■]	[3]

RETURNING THE COMPLETED SURVEY:

Specific instructions for the return of this survey, when you have completed it, have been given to you by the person who gave you the form. *Be sure to seal your completed survey form in the attached envelope before turning it in.* This is requested to insure the privacy of your responses. Completed surveys will be returned to Educational Testing Service in these sealed envelopes, assuring you that no one at your college will know how you answered the items of the survey.

THIS QUESTIONNAIRE WILL BE USED FOR STATISTICAL PURPOSES ONLY. YOU ARE NOT ASKED TO GIVE YOUR NAME; ALSO, YOU MAY OMIT ANY ITEM WHICH YOU CONSIDER UNDULY PERSONAL OR OBJECTIONABLE FOR ANY REASON. ONLY GROUP RESPONSES WILL BE ANALYZED AND REPORTED. NO DATA CAN BE IDENTIFIED WITH YOU OR ANY OTHER STUDENT

Certain items in this questionnaire are from instruments
Copyrighted by Educational Testing Service

OE Form 192 (OPPE)

1. Sex

1. Male [1]
2 Female [2] 7

2. Age at last birthday:

1. 16 or under [1]
2. 17 [2]
3. 18 [3]
4. 19 [4]
5. 20 [5] 8
6. 21 [6]
7. 22 [7]
8. 23 [8]
9. 24 or older [9]

3. Marital Status:

1. Single [1]
2. Married [2]
3. Widowed [3] 9
4. Divorced [4]
5. Separated [5]

4. How many persons do you support or help support ? (include yourself)

1. None [1]
2. One [2]
3. Two [3] 10
4. Three [4]
5. Four or more [5]

5. What is your native language?

1. English [1]
2. Spanish [2] 11
3. Indian Dialect [3]
4. Other [4]

6. Race or Ethnic Group:

1. Nativee American (Indian) [1]
2. Black or Afro-American [2]
3. Mexican-American [3]
4. White (Caucasian) [4] 12
5. Oriental [5]
6. Puerto Rican [6]
7. Other [7]

7. Are you a veteran of the U. S. Armed Services?

1. Yes [1] 13
2 No [2]

8. Do you have any of the following physical handicaps? (Check all that apply)

1. Legally blind [1] 14
2. Complete loss of sight [1]
3. Legally deaf [1]
4. Complete loss of hearing [1]
5. Severe speech impediment [1]
6. Loss of free use of one or both arms [1]
7. Loss of free use of one or both legs [1]
8. Handicap requiring use of wheelchair [1]
9. I have none of the above handicaps [1] 22

9. How many hours per week do you work for pay?

1. None [1]
2. 1 - 5 [2]
3. 6 - 10 [3] 23
4. 11 - 20 [4]
5. 21 - 30 [5]
6. 31 or more [6]

10. Please make the best estimate you can of your family's total income for last year (1971). Include money earned by anyone who contributed to the total family income.

1. Less than $2,000 [1]
2. $2,000 to $2,999 [2]
3. $3,000 to $4,499 [3]
4. $4,500 to $5,999 [4]
5. $6,000 to $7,499 [5] 24
6. $7,500 to $9,999 [6]
7. $10,000 to $14,999 [7]
8. $15,000 to $24,999 [8]
9. $25,000 or more [9]

11. How much formal education do your parents or guardians have? Indicate only the highest level (i.e. make only one alternative in each column).

	25 Father	26 Mother
1. No formal schooling or some grade school only	[1]	[1]
2. Finished grade school	[2]	[2]
3. Some high (secondary) school	[3]	[3]
4. Finished high school	[4]	[4]
5. Business or trade school	[5]	[5]
6. Some college	[6]	[6]
7. Finished college (four years)	[7]	[7]
8. Attended graduate or professional school (e.g., law or medical school) but did not attain a graduate or professional degree	[8]	[8]
9. Attained a graduate or professional degree (e.g., MA, PhD, MD)	[9]	[9]

12. Which of the following best describes the current (or most recent) occupation of your parents (or guardians)? Mark one in each column.

	27 Father	28 Mother
1. Unskilled worker, laborer, farm worker, domestic, waitress	[1]	[1]
2. Semiskilled worker, machine operator, seamstress	[2]	[2]
3. Service worker (policeman, fireman, nurse, military non-commissioned officer, etc.)	[3]	[3]
4. Skilled worker or craftsman (carpenter, electrician, plumber, etc.)	[4]	[4]
5. Salesman, bookkeeper, secretary, office worker, etc.	[5]	[5]
6. Owner, manager, partner of a *small* business or farm; lower-level government official; military commissioned officer	[6]	[6]
7. Professional typically requiring a bachelor's or master's degree (engineer, school teacher, etc.)	[7]	[7]
8. Owner or high-level executive of *large* business, high-level government agency, large agricultural enterprise, etc.	[8]	[8]
9. Professional typically requiring an advanced degree (doctor, lawyer, college professor, etc.)	[9]	[9]

13. Indicate the extent of support that you have received from the following sources since you have been in college. (Mark one column for each source of support.)

		All	More than half	Not half but more than 1/4	Less than 1/4	None	
1.	Parents, guardians, or other relatives	[1]	[2]	[3]	[4]	[5]	29
2.	Wife or husband	[1]	[2]	[3]	[4]	[5]	
3.	Off-campus job	[1]	[2]	[3]	[4]	[5]	
4.	Work-study program	[1]	[2]	[3]	[4]	[5]	
5.	On-campus job (not work-study)	[1]	[2]	[3]	[4]	[5]	
6.	Tuition Remission	[1]	[2]	[3]	[4]	[5]	
7.	Academic scholarship	[1]	[2]	[3]	[4]	[5]	
8.	Athletic scholarship	[1]	[2]	[3]	[4]	[5]	
9.	Other scholarship assistance	[1]	[2]	[3]	[4]	[5]	
10.	GI Bill, ROTC, or other military associated assistance (not loan)	[1]	[2]	[3]	[4]	[5]	
11.	Educational Opportunity Grant	[1]	[2]	[3]	[4]	[5]	
12.	Social Security Survivors Benefits	[1]	[2]	[3]	[4]	[5]	
13.	Other state or government grant (gift)	[1]	[2]	[3]	[4]	[5]	
14	College grant (gift, not scholarship or loan)	[1]	[2]	[3]	[4]	[5]	
15.	National Defense Student Loan (NDEA)	[1]	[2]	[3]	[4]	[5]	
16.	Federal Insured Loan	[1]	[2]	[3]	[4]	[5]	
17.	Other state or government loan	[1]	[2]	[3]	[4]	[5]	
18.	College loan	[1]	[2]	[3]	[4]	[5]	
19.	Private loan	[1]	[2]	[3]	[4]	[5]	
20.	Personal savings	[1]	[2]	[3]	[4]	[5]	48

14. In what setting did you grow up (or spend most of your life)?

1. A city of more than 500,000 . . . . [1]
2. A suburb of a city of more than 500,000 . . . . [2]
3. A city of 50,000 to 500,000 . . . . [3]
4. A suburb of a city of 50,000 to 500,000 . . . . [4] 49
5. A city or town of 10,000 to 50,000 . . . . [5]
6. A town of less than 10,000 . . . . [6]
7. A farm, ranch, or other open loaation . . . . [7]

15. Have you ever lived in any of the areas named below? Please check *ALL* that apply.

1. Model cities area . . . . [1] 50
2. Federal housing project . . . . [1]
3. Reservation . . . . [1]
4. Farm . . . . [1]
5. Boarding school for a specified handicapped group (school for the blind, deaf, etc.) . . . . [illegible] 54

16. How would you classify the neighborhood where you spent most of your life?

1. Low income . . . . [1]
2. Middle income . . . . [2] 55
3. Upper income . . . . [3]

17. Where are you living this term?

1. College dormitory or apartment . . . . [1]
2. Fraternity or sorority house . . . . [2]
3. Cooperative . . . . [3]
4. Boarding house . . . . [4]
5. At home with parents . . . . [5] 56
6. With relatives or family friends . . . . [6]
7. Private room off campus . . . . [7]
8. Private apartment off campus . . . . [8]
9. Other . . . . [9]

18. What is your class in school?

1. Freshman . . . . [1]
2. Sophomore . . . . [2]
3. Junior . . . . [3] 57
4. Senior . . . . [4]
5. Other . . . . [5]

19. How many of your brothers, sisters, and other relatives are dependent on your parents or legal guardian for financial support, including yourself? (do not count your parent or guardian.)

1. None . . . . [1]
2. One . . . . [2]
3. Two . . . . [3]
4. Three . . . . [4] 58
5. Four . . . . [5]
6. Five . . . . [6]
7. Six or more . . . . [7]

20. During your college years, how many of your dependent brothers or sisters will also be in college?

1. None . . . . [1] 1
2. One . . . . [2]
3. Two . . . . [3] 59
4. Three . . . . [4]
5. Four or more . . . . [5]

21. Which of the following grades best represent your overall grade-average in high school and in college so far? (Mark one answer in each column)

		60 High School	61 College (to date)
1.	A-, A or A+	[1]	[1]
2.	B+	[2]	[2]
3.	B.	[3]	[3]
4.	B-	[4]	[4]
5.	C+	[5]	[5]
6.	C	[6]	[6]
7.	C-	[7]	[7]
8.	D-, D, or D+	[8]	[8]
9.	F	[9]	[9]

22. Which of the following best describes your high school or secondary school? (The school from which you graduated, or attended for the longest time.)

1. Public . . . . [1]
2. Private . . . . [2] 62
3. Military . . . . [3]
4. Bureau of Indian Affairs . . . . [4]

23. Which of the following describes the majority of the students in your high school? (Mark only one)

1. White . . . . [1]
2. Black . . . . [2]
3. Indian . . . . [3]
4. Mexican American . . . . [4] 63
5. Puerto Rican . . . . [5]
6. Oriental . . . . [6]
7. Other . . . . [7]
8. None of these; students in my high school were about equally divided among two or more of the above groups . . . . [8]

24. The majority group named above represented what porportion of the student body at your high school?

1. All or almost all . . . . [1]
2. About three-fourths . . . . [2] 64
3. A little more than half . . . . [3]
4. No single group was in the majority . . . . [4]

25. How many students were there in your high school?

1. Fewer than 500 . . . . [1]
2. 500-999 . . . . [2]
3. 1000-1499 . . . . [3] 65
4. 1500-1999 . . . . [4]
5. 2000 or more . . . . [5]

26. What percentage of the students who graduate from your high school go on to college?

1. Almost all or most . . . . [1]
2. Half or more than half . . . . [2]
3. A large number but not half (26%-49%) . . . . [3] 66
4. A fairly small number (11%-25%) . . . . [4]
5. Very few (1%-10%) . . . . [5]

27. How would you rate the academic program at your high school?

1. Very poor . . . . [1]
2. Poor . . . . [2]
3. Fair . . . . [3] 67
4. Good . . . . [4]
5. Very Good . . . . [5]

28. Which of the following was most characteristic of your high school?

1. Little or no racial strife or tension among different racial or ethnic groups . . . . [1]
2. Occasional or minor difficulties among different racial groups . . . . [2] 68
3. Frequent strife or severe racial tension among the different racial groups . . . . [3]

29. In high school and college, did you receive any special prizes, awards or recognition for any of the following kinds of activity? (Mark all that apply in each column)

	High School	College
1. Scholastic	[1] 69	[1] 77
2. Athletic	[1]	[1]
3. Artistic	[1]	[1]
4. Literary/Oratory	[1]	[1]
5. Community Service	[1]	[1]
6. Social/Fraternal	[1]	[1]
7. Political (includes Young Republicans, Student Government, etc.)	[1]	[1]
8. None of the above	[1] 76	[1] 84

30. After you completed high school, did you come directly to this college?

1. Yes . . . . [1]
2. No; went to a trade or vocational school . . . . [2]
3. No; went to another college . . . . [3] 85
4. No; went to work . . . . [4]
5. No; served in military . . . . [5]
6. No; other activity . . . . [6]

31. Once you began your college education, did you ever discontinue it for a period of time? (Other than summer vacations)

1. No . . . . [1]
2. Yes; for academic reasons . . . . [2]
3. Yes; for financial reasons . . . . [3] 86
4. Yes; for health reasons . . . . [4]
5. Yes; served in the military . . . . [5]
6. Yes; for other reasons . . . . [6]

32. Did you participate in any special program (like Upward Bound, Project Opportunity, Project Access, etc.) outside of regular school work designed to help prepare you for or get you into college? . . . . Yes [1] . . . . No [2] 87

33. If your answer to No. 32 is yes, what did the program involve? (Mark *all* that apply)

1. Special assistance in learning how to study . . . . [1] 88
2. Special courses or instructions designed to help prepare me for college courses . . . . [1]
3. Special cultural experiences - travel, etc. . . . . [1]
4. Help in locating a suitable college . . . . [1]
5. Help in getting admitted to a college . . . . [1]
6. Visits to one or more college campuses . . . . [1]
7. Information about colleges - college life, requirements, etc . . . . [1]
8. Financial assistance toward college expenses . . . . [1]
9. Special coaching or training in a sport . . . . [1]
10. Special training or assistance in learning how to get along away from home . . . . [1]
11. A combination of work and study as in the High School Work Study Program . . . . [1]
12. Training in a vocation (as in the Cooperative Vocational Education or "Co-op" Program). . . . . [1]
13. Some other activity . . . . [1] 100

34. How influential were the following people or programs in your decision to get a college education?

	Very Influential	Somewhat Influential	Not Influential	
1. One or both of my parents	[1]	[2]	[3]	101
2. Some other relative	[1]	[2]	[3]	
3. One or more of my high school teachers	[1]	[2]	[3]	
4. A counselor or guidance specialist	[1]	[2]	[3]	
5. One or more of my friends	[1]	[2]	[3]	
6. A representative (faculty or administration) of this college who contacted me	[1]	[2]	[3]	106
7. One or more students or former students at this college (not a relative)	[1]	[2]	[3]	
8. A clergyman	[1]	[2]	[3]	
9. A coach	[1]	[2]	[3]	
10. Upward Bound, Talent Search, or other special program	[1]	[2]	[3]	
11. Special facilities for the physically handicapped	[1]	[2]	[3]	111

35. How important were each of the following to you in choosing this college?

	Very Important	Somewhat Important	Not Important	
1. Closeness to home	[1]	[2]	[3]	112
2. Good academic reputation	[1]	[2]	[3]	
3. Had courses or programs I wanted	[1]	[2]	[3]	
4. Specific religious affiliation	[1]	[2]	[3]	
5. Low cost	[1]	[2]	[3]	
6. Good athletic reputation	[1]	[2]	[3]	
7. Availability of fraternities or sororities	[1]	[2]	[3]	
8. Coeducational enrollment	[1]	[2]	[3]	
9. Small student body	[1]	[2]	[3]	
10. Specific racial or ethnic composition of student body and/or faculty	[1]	[2]	[3]	
11. Special counselor for the physically handicapped	[1]	[2]	[3]	122

36. Compared to other students you know at this college, how do you rate yourself on time spent in the following activities? (Mark one column for each activity)

	More Time Than other Students	About Same Time as Other Students	Less Time Than other Students
1. Studying	[1]	[2]	[3] 1
2. Student Government	[1]	[2]	[3]
3. School/Community Service	[1]	[2]	[3]
4. Dating	[1]	[2]	[3]
5. Parties and Other Social Activities	[1]	[2]	[3]
6. "Rap" Sessions	[1]	[2]	[3]
7. Community Action (e.g. CAP, Legal Services, Model Cities)	[1]	[2]	[3]
8. Political Action Groups (e.g. SDS, YAF, BSU, UMAS)	[1]	[2]	[3]
9. Working	[1]	[2]	[3]
10. Athletics	[1]	[2]	[3] 10

37. In your *first year* in college, how much difficulty have you had (or did you have) with your courses in each of the following areas?

	Much Difficulty	Some Difficulty	No Difficulty	Didn't Take
1. Mathematics	[1]	[2]	[3]	[4] 11
2. Natural Science (Physics, Chemistry, Biology, etc.)	[1]	[2]	[3]	[4]
3. English	[1]	[2]	[3]	[4]
4. History	[1]	[2]	[3]	[4]
5. Humanities (Fine Arts, Philosophy, Music, Religion)	[1]	[2]	[3]	[4]
6. Social Sciences (Sociology, Psychology)	[1]	[2]	[3]	[4]
7. Physical Education	[1]	[2]	[3]	[4]
8. Foreign Languages	[1]	[2]	[3]	[4]
9. Business	[1]	[2]	[3]	[4]
10. Agriculture	[1]	[2]	[3]	[4]
11. Technical or Trade Courses (Electronics, Carpentry, Welding, Beauty Culture, Nursing, Dental Technology, etc.)	[1]	[2]	[3]	[4] 21

38. What is, or probably will be, your major field of undergraduate study? (Mark only one)

1. Biological sciences, physical sciences or mathematics .... [0]
2. Social sciences (political science, sociology, history, economics, psychology, etc.) .... [1]
3. Humanities or fine arts (languages, literature, philosophy, religion, etc.) .... [2]
4. Education (Mark only if education rather than a subject field is to be your major) .... [3]
5. Business .... [4] 22
6. Engineering .... [5]
7. Other profession or vocation requiring a four year college degree (nursing, forestry, home economics, agriculture, etc.) .... [6]
8. Technical program requiring two years of college work (electronics, dental technology, programming, etc.) .... [7]
9. Other trade requiring less than two years of college work (plumbing, carpentry, welding, tailoring, beauty culture, barber, shoe repair, etc.) .... [8]
10. Do not know .... [9]

39. In thinking about your occupational future, do you feel that in the long run you will have a preference for: (Mark only one)

1. An academic life (teaching, research, other scholarly work) .... [1]
2. A business life .... [2]
3. A professional life (doctor, lawyer, engineer, etc.) .... [3]
4. A trained technician or craftsman .... [4]
5. A life centered on some aspect of creative arts .... [5] 23
6. A life centered on a home and family .... [6]
7. A political life .... [7]
8. Other .... [8]
9. I have not given sufficient thought to this matter to say .... [9]

40. Which one of the following best describes your plans for continuing your education after this year? (Choose One)

1. I am seriously considering dropping out or quitting school for good .... [1]
2. I am considering transferring to another school or college before the end of my present program of studies .... [2]
3. I may drop out for a time, but still plan to complete my present program of studies at this institution and graduate some day .... [3]
4. I am fairly certain I will continue at this school without interruption until I finish .... [4] 24
5. I plan to continue study in a graduate program immediately upon completion of undergraduate work .... [5]
6. I plan to finish my undergraduate work, then someday I hope to continue study in a graduate program .... [6]

41. How do you feel about your involvement at this college with students of a racial or ethnic group other than your own. (Mark only one)

1. I prefer strongly to associate with people of my own race or ethnic group . . . . ☐
2. I have no strong preference, but generally associate with people of my own race or ethnic group . . . . ☐
3. I generally associate more with students of different racial or ethnic origins than with students like me . . . . ☐ 25
4. I have no preference for any particular racial or ethnic group . . . . ☐

42. Within the past semester or term, how often have you

		Very often	Often	Sometimes	Seldom or never	
1.	Read a single assignment three or more times	☐	☐	☐	☐	26
2.	Rewritten a paper before turning it in	☐	☐	☐	☐	
3.	Failed a course	☐	☐	☐	☐	
4.	Failed to turn in an assignment on time	☐	☐	☐	☐	
5.	Stayed up all night working on studies	☐	☐	☐	☐	
6.	Read something for a course that was not required	☐	☐	☐	☐	31
7.	Turned in a *typed* term paper or report	☐	☐	☐	☐	
8.	Debated in class with a professor	☐	☐	☐	☐	
9.	Made an appointment with a teacher to discuss your work	☐	☐	☐	☐	
10.	Consulted a counselor about academic work	☐	☐	☐	☐	
11.	Received help from a tutor	☐	☐	☐	☐	36
12.	Made a top grade on a test	☐	☐	☐	☐	
13.	Spent more than two hours at one time in the library	☐	☐	☐	☐	
14.	Gone to a psychologist or psychiatrist for help with a problem	☐	☐	☐	☐	
15.	Tutored another student (of any age group)	☐	☐	☐	☐	
16.	Come late to class	☐	☐	☐	☐	41
17.	Put in extra time on a laboratory experiment	☐	☐	☐	☐	
18.	Considered dropping out of school	☐	☐	☐	☐	
19.	Thought about graduate study	☐	☐	☐	☐	
20.	Joined a student protest or demonstration	☐	☐	☐	☐	
21.	Felt that a professor set standards too high	☐	☐	☐	☐	46
22.	Felt adequately prepared when entering an examination	☐	☐	☐	☐	
23.	Been satisfied with your grade in a course	☐	☐	☐	☐	48

43. With regard to your life and work in this college so far, how satisfied are you with:

		Very Satisfied	Somewhat Satisfied	Neutral, or No Opinion	Somewhat Dissatisfied	Very Dissatisfied	
1.	The capability and knowledge of most teachers	[1]	[2]	[3]	[4]	[5]	49
2.	The personal qualities of most teachers	[1]	[2]	[3]	[4]	[5]	
3.	The courses you have taken thus far	[1]	[2]	[3]	[4]	[5]	
4.	Any courses you must take in the future	[1]	[2]	[3]	[4]	[5]	
5.	The grades you have achieved so far	[1]	[2]	[3]	[4]	[5]	
6.	The opportunities you have for self-expression	[1]	[2]	[3]	[4]	[5]	
7.	The chances you have to complete your college program	[1]	[2]	[3]	[4]	[5]	
8.	Your personal and intellectual growth so far	[1]	[2]	[3]	[4]	[5]	56
9.	The general attitude of most other students here	[1]	[2]	[3]	[4]	[5]	
10.	The opportunities for for social life	[1]	[2]	[3]	[4]	[5]	
11.	The room or place you have to live in	[1]	[2]	[3]	[4]	[5]	
12.	Your ability to concentrate on your studies	[1]	[2]	[3]	[4]	[5]	
13.	The community in which this college is located	[1]	[2]	[3]	[4]	[5]	61
14.	Your opportunity to participate in athletics	[1]	[2]	[3]	[4]	[5]	
15.	Opportunities for getting any extra help you need to stay in colllege and do well	[1]	[2]	[3]	[4]	[5]	
16.	The money you have to get along on	[1]	[2]	[3]	[4]	[5]	
17.	The rules and regulations of this college	[1]	[2]	[3]	[4]	[5]	
18.	The administration (deans, president) of this college	[1]	[2]	[3]	[4]	[5]	66
19.	The kind of work and life this college is preparing you for	[1]	[2]	[3]	[4]	[5]	
20.	The relationships between students of different racial origins here	[1]	[2]	[illegible]	[4]	[5]	68

44. Listed below are several student services or programs offered at some colleges. For each listed service, please do the following: (I) mark whether or not you know if such a service is readily available to students on your campus: (II) for every service that you know to be available on your campus, mark whether or not *YOU* have used that service; (III) for every service you have used, indicate your evaluation of the help you received from the service.

		I Provided here? (If *Yes* Complete Column II)			II Have you Participated? (IF *Yes* Complete Column III)			III How Helpful?			
		No		Yes	No		Yes	Very Helpful	Somewhat Helpful	Not Helpful	
1.	Tutoring by other students	[1]	69	[2]	[1]	89	[2]	[1]	[2]	[3]	109
2.	Tutoring by faculty	[1]		[2]	[1]		[2]	[1]	[2]	[3]	
3.	Professional counseling for personal problems	[1]		[2]	[1]		[2]	[1]	[2]	[3]	
4.	Professional counseling on job or career choices	[1]		[2]	[1]		[2]	[1]	[2]	[3]	
5.	Professional counseling on academic problems	[1]		[2]	[1]		[2]	[1]	[2]	[3]	
6.	Professional counseling on financial problems	[1]		[2]	[1]		[2]	[1]	[2]	[3]	
7.	Remedial courses	[1]		[2]	[1]		[ ]	[1]	[2]	[3]	
8.	Student loan or scholarship	[1]	76	[2]	[1]	96	[2]	[1]	[2]	[3]	116
9.	Work-Study program	[1]		[2]	[1]		[2]	[1]	[2]	[3]	
10.	Student Health Services	[1]		[2]	[1]		[2]	[1]	[2]	[3]	
11.	Help in choosing courses and planning my program of study	[1]		[2]	[1]		[2]	[1]	[2]	[3]	
12.	Independent study	[1]		[2]	[1]		[2]	[1]	[2]	[3]	
13.	Honors program	[1]	81	[2]	[1]	101	[2]	[1]	[2]	[3]	121
14.	Cooperative Work Programs	[1]		[2]	[1]		[ ]	[1]	[2]	[3]	
15.	Courses or programs in reading improvement	[1]		[2]	[1]		[2]	[1]	[2]	[3]	1
16.	Courses or programs in improving writing skills	[1]		[2]	[1]		[2]	[1]	[2]	[3]	
17.	Assistance in finding housing	[1]		[2]	[1]		[2]	[1]	[2]	[3]	
18.	Assistance in finding part-time employment	[1]	86	[2]	[1]	106	[2]	[1]	[2]	[3]	
19.	Reduced course load	[1]		[2]	[1]		[2]	[1]	[2]	[3]	
20.	Heritage of Minority Groups	[1]	88	[2]	[1]	108	[2]	[1]	[2]	[3]	6

44. Continued

		I Provided here? (If *Yes* Complete Column II)		II Have you Participated? (If *Yes* Complete Column III)		III How Helpful?		
		No	Yes	No	Yes	Very Helpful	Somewhat Helpful	Not Helpful
21.	Help in deciding whether to go to graduate school or not	[1] 7	[2]	[1] 17	[2]	[1]	[2]	[3] 27
22.	Help in choosing a graduate school	[1]	[2]	[1]	[2]	[1]	[2]	[3]
23.	Help in learning how to study more efficiently	[1]	[2]	[1]	[2]	[1]	[2]	[3]
24.	Having faculty of differing racial/or ethnic background	[1]	[2]	[1]	[2]	[1]	[2]	[3]
25.	Help in improving my skills in working with numbers	[1] 11	[2]	[1] 21	[2]	[1]	[2]	[3] 31
26.	Instruction or good advice on how to do well on tests	[1]	[2]	[1]	[2]	[1]	[2]	[3]
27.	Help in finding a job after college	[1]	[2]	[1]	[2]	[1]	[2]	[3]
28.	Having classes with small numbers of students	[1]	[2]	[1]	[2]	[1]	[2]	[3]
29.	Having a counselor of your own race or ethnic group	[1]	[2]	[1]	[2]	[1]	[2]	[3]
30.	Opportunities to get to know the faculty	[1] 16	[2]	[1] 26	[2]	[1]	[2]	[3] 36

45. For each of the special distinctions or accomplishments listed below, indicate the degree to which you would value attaining that distinction.

		Value very highly	Value highly	Value somewhat	Value little	Value not at all	
1.	Becoming the leader of a student group	☐	☐	☐	☐	☐	37
2.	Winning a letter or position on a varsity athletic team	☐	☐	☐	☐	☐	
3.	Receiving recognition for a literary composition, art work, music, etc.	☐	☐	☐	☐	☐	
4.	Making an original scientific discovery	☐	☐	☐	☐	☐	
5.	Making Dean's List, Phi Beta Kappa, or similar academic distinction	☐	☐	☐	☐	☐	41
6.	Helping someone have a meaningful religious experience	☐	☐	☐	☐	☐	
7.	Becoming the owner or manager of a profitable business on or near the campus	☐	☐	☐	☐	☐	
8.	Helping someone kick the drug habit	☐	☐	☐	☐	☐	
9.	Helping someone in a real way who needs help	☐	☐	☐	☐	☐	
10.	Winning a scholarship that would pay your full tuition and costs	☐	☐	☐	☐	☐	
11.	Getting admitted to a good graduate school	☐	☐	☐	☐	☐	47

46. Below are some statements expressing feelings that many college students have about themselves. For each one, please indicate whether the statement is generally true for you, or generally not true, or if you're uncertain.

	Generally true for me	Generally not true for me	Uncertain	
1. I feel that most students here have better preparation for college than I have	[1]	[2]	[3]	48
2. I have more worries than most students	[1]	[2]	[3]	
3. I am happy most of the time	[1]	[2]	[3]	
4. Most of my courses are pretty boring	[1]	[2]	[3]	
5. Most students here are very different from me in what they like and value	[1]	[2]	[3]	
6. I feel most comfortable here with students of my own racial or ethnic background	[1]	[2]	[3]	53
7. Other students here seem to have a harder time getting good grades than I do	[1]	[2]	[3]	
8. My social life here is a very rewarding part of college life for me	[1]	[2]	[3]	
9. I am confident about my chances to achieve a satisfying and rewarding way of life after college	[1]	[2]	[3]	
10. This college is great in every way for me	[1]	[2]	[3]	
11. Most students score lower than I do on tests like SAT, ACT, etc.	[1]	[2]	[3]	58

47. During the time you were in elementary school, how frequently did the following things happen?

	Frequently	Sometimes	Seldom or never	
1. One or both parents helped me with school work	[1]	[2]	[3]	59
2. Cut or stayed away from school	[1]	[2]	[3]	
3. Won a talent contest of some sort	[1]	[2]	[3]	
4. One or both of my parents talked with my teacher or teachers	[1]	[2]	[3]	
5. Checked out books from the school library	[1]	[2]	[3]	
6. Was punished by a parent for something I did	[1]	[2]	[3]	
7. Got in trouble with a teacher or school authorities	[1]	[2]	[3]	
8. Got an A on a test or assignment	[1]	[2]	[3]	66
9. Got a bad grade on a test or assignment	[1]	[2]	[3]	
10. Someone in my family read to me	[1]	[2]	[3]	
11. Practiced with a musical instrument	[1]	[2]	[3]	
12. Took dance lessons outside of school	[1]	[2]	[3]	
13. Attended religious services	[1]	[2]	[3]	71
14. Missed school because of illness	[1]	[2]	[3]	
15. Went to bed hungry	[1]	[2]	[3]	
16. Got in fights with others near my own age	[1]	[2]	[3]	
17. Looked up something in an encyclopedia	[1]	[2]	[3]	
18. Worked at some regular job (paper route, baby sitting, etc.) for pay	[1]	[2]	[3]	76
19. Watched television	[1]	[2]	[3]	
20. Had a teacher I liked a lot	[1]	[2]	[3]	78

48. Of the activities listed, mark (I) all those which you engaged in while still in high school and (II) those you have engaged in since coming to college.

		I Did while in High School	II Have done while in College
1.	Visited an art gallery	[ ] 79	[ ] 117
2.	Given blood	[ ]	[ ]
3.	Gone to a play	[ ]	[ ]
4.	Written a story for my own amusement	[ ]	[ ]
5.	Written a poem for my own amusement	[ ]	[ ]
6.	Made a speech before a group	[ ]	[ ] 122
7.	Traveled outside my home state	[ ]	[ ] 1
8.	Sung in a choir, gospel chorus, or glee club	[ ] 86	[ ]
9.	Put money in a bank	[ ]	[ ]
10.	Discussed a plan to make money with a friend	[ ]	[ ]
11.	Spent more than $50 on clothes in a week	[ ]	[ ]
12.	Hitchhiked somewhere	[ ]	[ ] 6
13.	Had a physical examination by a doctor	[ ] 91	[ ]
14.	Visited a dentist for checkup or dental work	[ ]	[ ]
15.	Attended a meeting for a political candidate (not a student)	[ ]	[ ]
16.	Listened to a speech by the President of the U.S.	[ ]	[ ]
17.	Made as much as $50 for a week's work	[ ]	[ ] 11
18.	Gone somewhere by bus or train	[ ] 96	[ ]
19.	Gone somewhere by plane	[ ]	[ ]
20.	Prayed (not including grace before meals)	[ ]	[ ]
21.	Played in a band or an orchestra	[ ]	[ ]
22.	Gone to a classical music concert	[ ]	[ ] 16
23.	Gone to a jazz concert	[ ] 101	[ ]
24.	Won an office or leadership position in school	[ ]	[ ]
25.	Made an article of clothing	[ ]	[ ]
26.	Played a musical instrument	[ ]	[ ]
27.	Given money or time to charity	[ ]	[ ] 21
28.	Been active in a student movement group	[ ] 106	[ ]
29.	Stayed up all night on a party or social activity	[ ]	[ ]
30.	Had dinner with a date	[ ]	[ ]
31.	Repaired a car, appliance, or mechanical equipment	[ ]	[ ]
32.	Attended religious services regularly	[ ]	[ ] 26
33.	Worked in a selling job of any type	[ ] 111	[ ]
34.	Had psychotherapy	[ ]	[ ]
35.	Helped another student with his school work	[ ]	[ ]
36.	Read poetry on my own time	[ ]	[ ]
37.	Read scientific articles on my own time	[ ]	[ ]
38.	Read biographies on my own time	[ ] 116	[ ] 32

49. Outside of class assignments, how frequently do you read:

	Regularly or frequently	Sometimes	Seldom or never	
1. Poetry	[1]	[2]	[3]	33
2. Modern novels	[1]	[2]	[3]	
3. Science fiction	[1]	[2]	[3]	
4. Plays	[1]	[2]	[3]	
5. Scientific articles	[1]	[2]	[3]	
6. Histories	[1]	[2]	[3]	
7. Books expressing political thought	[1]	[2]	[3]	
8. Biographies	[1]	[2]	[3]	
9. Essays on some serious topic	[1]	[2]	[3]	
10. Humor	[1]	[2]	[3]	42

50. How frequently do you read:

	Regularly or frequently	Sometimes	Seldom or never	
1. News magazines like *Time, Newseek*	[1]	[2]	[3]	43
2. Magazines like *Playboy*	[1]	[2]	[3]	
3. Student newspaper	[1]	[2]	[3]	
4. The sports section of a daily newspaper	[1]	[2]	[3]	
5. The editorial section of a daily newspaper	[1]	[2]	[3]	
6. The front page of a daily newspaper	[1]	[2]	[3]	
7. Women's magazines like *Vogue, Seventeen*	[1]	[2]	[3]	
8. Magazines like *Mad Magazine*	[1]	[2]	[3]	
9. Sports or outdoor magazines	[1]	[2]	[3]	
10. Magazines like *Popular Mechanics*	[1]	[2]	[3]	52
11. Magazines like *Atlantic Monthly*	[1]	[2]	[3]	
12. Magazines like *Saturday Review*	[1]	[2]	[3]	
13. Magazines like *Life*	[1]	[2]	[3]	
14. Magazines like the *New Republic*	[1]	[2]	[3]	
15. An "underground" *newspaper*	[1]	[2]	[3]	
16. Magazines like *Holiday* or *National Geographic*	[1]	[2]	[3]	
17. Comic books	[1]	[2]	[3]	
18. Movement literature	[1]	[2]	[3]	
19. Magazines like *Ebony*	[1]	[2]	[3]	
20. Magazines like *Ramparts*	[1]	[2]	[3]	
21. Magazines like *The Black Scholar*	[1]	[2]	[3]	63

51. Below is a list of names of representatives of cultural change in America in the last two decades. Tell how you feel about the importance of what each has accomplished.

I feel his or her accomplishments are:

	I don't know much about him	of the greatest importance or significance	of some importance	of limited importance	
1. Reies Lopez Tijerina	[1]	[2]	[3]	[4]	64
2. Jonas Salk	[1]	[2]	[3]	[4]	
3. C. P. Snow	[1]	[2]	[3]	[4]	
4. Bob Dylan	[1]	[2]	[3]	[4]	
5. John F. Kennedy	[1]	[2]	[3]	[4]	
6. Abbie Hoffman	[1]	[2]	[3]	[4]	
7. Oral Roberts	[1]	[2]	[3]	[4]	
8. Eric Hoffer	[1]	[2]	[3]	[4]	71
9. William Buckley	[1]	[2]	[3]	[4]	
10. Ralph Nader	[1]	[2]	[3]	[4]	
11. Luis Valdez	[1]	[2]	[3]	[4]	
12. Christian Barnard	[1]	[2]	[3]	[4]	
13. Cardinal Cushing	[1]	[2]	[3]	[4]	
14. Mao Tse-Tung	[1]	[2]	[3]	[4]	
15. Martin Luther King	[1]	[2]	[3]	[4]	
16. Tom Dooley	[1]	[2]	[3]	[4]	
17. Andrew Wyeth	[1]	[2]	[3]	[4]	
18. Ralph Bunch	[1]	[2]	[3]	[4]	81
19. Stokely Carmichael	[1]	[2]	[3]	[4]	
20. Betty Friedan	[1]	[2]	[3]	[4]	
21. Werner VonBraun	[1]	[2]	[3]	[4]	
22. Mario Savio	[1]	[2]	[3]	[4]	
23. Malcolm X	[1]	[2]	[3]	[4]	
24. Bill Cosby	[1]	[2]	[3]	[4]	
25. Fidel Castro	[1]	[2]	[3]	[4]	
26. Norman Mailer	[1]	[2]	[3]	[4]	
27. Whitney Young	[1]	[2]	[3]	[4]	
28. Cesar Chavez	[1]	[2]	[3]	[4]	91
29. Billy Graham	[1]	[2]	[3]	[4]	
30. Angela Davis	[1]	[2]	[3]	[4]	
31. Mohammed Ali	[1]	[2]	[3]	[4]	
32. Norman Vincent Peale	[1]	[2]	[3]	[4]	
33. Neil Armstrong	[1]	[2]	[3]	[4]	
34. Max Lerner	[1]	[2]	[3]	[4]	
35. Gloria Steinem	[1]	[2]	[3]	[4]	
36. J. D. Salinger	[1]	[2]	[3]	[4]	99

OMB # 51-S-72021
Approval Expires 6/30/72

Student Interview Schedule

Date ______________________________

Interviewer's Name ______________________________

Interviewer's Mailing Address ______________________________

Name and Address of Institution ______________________________

____

I. First let's talk about your high school: Tell me something about it.

THE RESPONDENT MAY SPEAK UP IMMEDIATELY AND SPONTANEOUSLY: IF NOT, AS A LEAD ASK

1.

Where Located (Town, State)?	Years Attended?	Type Community (Rural, Urban, Small Town, Reservation, etc)	Number of Students?

2. What was the racial or ethnic mix in your high school?

Types (Race/Ethnic)	Approx. Numbers

OE FORM 192-1 (OPPE)

* * *

VERY IMPORTANT!

3. How well did your high school education prepare you for college?

PROBE FOR SPECIFICS. BE SURE TO GET COMMENTS ON STRENGTHS AND WEAKNESSES OF HIGH SCHOOL EDUCATION

WEAKNESSES	STRENGTHS

How could your high school be improved, how could it have given you a better preparation for college?

4. What grade best represents your overall grade-average in high school? _____
(Rank in class at graduation ________ of ________ Number of Students)

Do you think this is a fair representation of your ability?

_____ YES.
_____ NO. Why not? ______________________________

5. Did you ever receive any awards or special recognition (Scholastic, Athletic, Elected or Appointed Position, etc.)? [BE SPECIFIC!]

___ NO
___ YES [LIST] ____

____

____

____

* *

IMPORTANT!

II. Moving on now to the college scene, how did you decide to go to college? (When did you first start to think of going to college?)

IMPORTANT! BE SURE TO GET COMMENTS. BE AS SPECIFIC AS POSSIBLE. IF NECESSARY ASK QUESTION IN A DIFFERENT WAY.

IF THE QUESTIONS BELOW ARE NOT ANSWERED IN THE FREE RESPONSE ABOVE, ASK THEM NOW:

1. How did you choose this particular college? [BE SPECIFIC!] ____________

____

____

____

2. Why do you feel it is important (or necessary) to go to college? (What do you mean by that? Is there anything else?)

* *

IMPORTANT!

3. Who (or what) encouraged or influenced you the most in your general college plans? (Teacher(s), parent, friend(s), programs such as counceling, Neighborhood Youth Corps, Upward Bound, organizations such as ASPIRA, NSSFNS, etc., own decision, etc.)

* * *

VERY IMPORTANT!

4. Did you participate in a pre-college program designed to help students who are going to (any) college, such as Project Opportunity, Talent Search, Upward Bound, Transitional Year Program, Project Hope or Open, etc.?

___ NO. [IF NO, GO TO QUESTION D., p.5]
___ YES. Which program(s)?___________________________

A. What effect did this have on your decision to go to college?

BE SURE TO GET MEANINGFUL COMMENTS TO EACH QUESTION IN ITEM 4, A-C

B. What effect did this have on your decision to come to this particular college? [BE SPECIFIC!]

* * *

VERY IMPORTANT!

C. What were the major strengths and/or weaknesses of the [name] program(s)?

WEAKNESSES	STRENGTHS

HOW COULD THE PROGRAM HAVE BEEN INPROVED OR MADE MORE EFFECTIVE?

ASK ONLY IF ANSWER TO QUESTION 4 ON PREVIOUS PAGE WAS "NO"

D. Did your high school have programs like this?

___ NO.
___ YES. What students participated in the program(s) [give program name]? How were they selected?

____

____

III. What do you think of this school? (What is your general impression of [name] school?)

PROBE FOR IMPRESSIONS AND ATTITUDE TOWARD: [QUALITY OF, ATTITUDE TOWARD OTHERS, ETC.]

1. Students ____

____

2. Faculty

3. Administration

4. Quality of education (Does it meet your standards for quality?) [BE SPECIFIC!]

5. General school or college environment

6. Generally speaking, what would you say are the most outstanding and exciting things about this school? (Is there anything else?)

   A. What major improvements or changes would you like to see made here? [BE SPECIFIC!]

   B. Who (Students, Faculty, Department Heads, President, Board of Trustees, etc.) is likely to see that these improvements are made?

PROBE FOR EXAMPLES OF HOW SCHOOL COULD BE MORE EFFECTIVE. BE SPECIFIC!

7. How do you feel about your life in college thus far?
[BE SPECIFIC!] ______________________________

____

____

____

* * *
VERY
IMPORTANT!

PROBE FOR CLUES AS TO WHETHER OR NOT THE RESPONDENT IS COMFORTABLE AND HAPPY IN THE SCHOOL ENVIRONMENT.

HAPPY (COMFORTABLE) BECAUSE! WHY!	UNHAPPY (UNCOMFORTABLE) BECAUSE! WHY!

HOW COULD THE SITUATION(S) BE IMPROVED TO MAKE THINGS BETTER FOR YOU HERE?

8. What is the racial or ethnic mix among the student body here?
[ALSO] Are there many physically handicapped students?

IN BOTH SITUATIONS GIVE TYPES AND NUMBERS.

TYPES	APPROX. NUMBERS

PROBE
FOR AN
OPINION

9. How freely do you associate with other students who may be different from yourself--that is, racially, socially, or economically, and/or those who may be physically handicapped? [PROBE!] [BE SPECIFIC!] ________________________

ASK ONLY IF APPROPRIATE OR UNANSWERED ABOVE:
Are any of your close friends different in any of these ways from you? What do you think about students and others associating with different types of people? Have you changed in this regard since you have been in college?

* * *

VERY
IMPORTANT!

IV. Since you have been in college:

1. What grade best represents your overall grade average?

A. Do you think this is an accurate representation of your ability?
___YES.
___NO. Why not? ________________________

B. How do your grades in college, up to this point, compare to your overall high school grades? (Better, worse, about the same) ________________________

[IF DIFFERENT, ASK] What accounts for the difference?

C. Since your first term in college, have your grades improved, gotten worse or remained the same? ________________________

[IF DIFFERENT, ASK] What accounts for the difference? ________

* * *
VERY
IMPORTANT!

2. Have you participated in any special program (counseling, honor program, tutorial, remedial courses--credit or non-credit, work study, reduced course loan, reading or other special classes)? [REPEAT QUESTION!]

REPEAT
THE
QUESTION!

___NO. [SKIP TO ITEM 6, p. 10]
___YES. [BE SURE TO GET:]

NAME OF PROGRAM/COURSE	PURPOSE OR DESCRIPTION	NUMBER PARTICIPANTS

* * *
VERY
IMPORTANT!

3. Special strengths and/or weaknesses of the program(s):

PROGRAMS	WEAKNESSES	STRENGTHS

A. How could the program or activity be improved?
[BE SPECIFIC!]____________________

____
____
____
____

B. What other kinds of programs do you think would be helpful to students here?____________________

____
____

* * *

VERY IMPORTANT!

C. How have you personally changed because of this program or activity? (Think carefully!) How valuable was it to you? Is there anything? In what way?)______________________

____

____

____

4. How much voice do the students have in what is going on in this program?

[PROBE FOR AN OPINION!](Are there advisory committees, curriculum and admissions committees, etc. that include the students?) [PROBE FOR SPECIFICS!] What do you mean by that? Why is that so? Is there anything else?

5. What is the extent of community (off campus) participation in the operation of special programs?______________________

____

____

* * *

VERY IMPORTANT!

6. Are there other special programs or activities at this college that you know about but do not participate in?

A. [IF NO] Do you think there should be? (What kinds? For whom?) [RECORD RESPONSE BELOW AND SKIP TO QUESTION V, p. 11]

____

____

____

B. [IF YES] Give name of program, describe briefly, and tell who participates in it.______________________

____

____

C. What do you think of these programs? [BE SPECIFIC!] (Are they helpful? What other academic or special programs would you like to see on this campus?)______________________

____

____

D. Do you know any students who were participants in special programs who have left the program or left the school?

___NO.
___YES. Why?____

V. What about the social life on this campus? Is it more or less the same for ALL students -- the poor student, the physically handicapped students, etc.?

BE AS SPECIFIC AS POSSIBLE. IF IT SEEMS CLEARER, GIVE EXAMPLES.

VI. Are you a member of any ethnic unity groups or any associations for the physically handicapped? (e.g. United Mexican-American Society, Black Student Union, Native Federation, March of Dimes, National Multiple Sclerosis Society, etc.)? Are you a member of any other groups for minority or handicapped students?

___NO. [SKIP TO QUESTION VII, p. 12]
___YES. [BE SPECIFIC! SEE BELOW]

ORGANIZATION	PURPOSE	YOUR POSITION/ROLE

1. What attracted you to this group in the first place? (Why did you select to participate in it?) [PROBE!]

____

____

____

2. As a member, what are some of the strengths and weaknesses of the group or organization?

____

____

____

REPEAT THE QUESTION!

VII. From the list I am about to read to you, tell me which things have caused you some worry, no worry at all, or a great deal of worry.

Listen carefully and reply with some, none, or a great deal and tell why (in what way) it has caused you worry. [USE THE LETTERS S, N, AND A.]

	WHY?
____1. Course work in general	
____2. Studying (not enough time, place, how to)	
____3. Research; writing in general	
____4. Extra curricular activities (student government, clubs, etc.)	
____5. Social life, dating, parties	
____6. Finances (school expenses, general expenses, etc.)	
____7. Family concerns (pressures)	
____8. Close friendships with students (too few, too many)	
____9. Getting acquainted with wide variety of students	
___10. Being away from home	
___11. Drugs	
___12. Self-discovery, self-insights	
___13. Feeling at home here, newness of college environment	
___14. Possibility of failing	
___15. Working (part-time, etc.)	

1. Beyond all of the things we have talked about, are there any other things that concern you a great deal at this point in your life (social, personal, financial, etc.)? (What do you mean by that?)

2. [IF NOT ANSWERED ABOVE ASK NOW] In the world or society at large, what concerns you?

3. Are any of these concerns (personal or other) particularly pressing at this time? [ASK](In what way? What do you mean by that?)

VIII. What is your major field of study (or major interest)?

1. Do you see yourself working in this area in the not-too-distant future?

___No. Why not? (What do you plan to do? When?)

___Yes. In what capacity?

* * *
VERY
IMPORTANT!

2. [IF NOT ANSWERED ALREADY, ASK] What occupation or career do you actually think you will be working in the more distant future (your long-range desire)?____________________

3. Given this goal, what educational or other experiences do you consider highly relevant (valuable, necessary) in order to realize your plan? (What do you need?)

* * *

4. [IF NOT ANSWERED ALREADY, ASK] How far in school do you plan to go? (Long range and immediate plans). [BE SPECIFIC!]

5. Have you ever seriously considered quitting school or transferring to another college? (Why? What do you think you will actually do?)
___NO. [SKIP TO NEXT QUESTION]
___YES. [ANSWER BELOW]

PROBE
FOR
SPECIFICS

CONSIDERED	WHY?	WHAT DO YOU THINK YOU WILL ACTUALLY DO?

IX. Thinking seriously, now that you have been in college for a while, how have you changed personally? (Your Ideas? Thoughts? Outlook? Plans? Hopes? What has your college career done for you up to this point?)

INTERVIEWER'S COMMENTS:

[HOW HAPPY IS THE STUDENT AT THIS INSTITUTION? IS HE/SHE ENTHUSIASTIC, HOSTILE, APATHETIC, ETC.? WHAT WAS THE STUDENT'S ATTITUDE TOWARD THE INTERVIEW; e.g. COOPERATIVE, ANXIOUS, HOSTILE, ETC.?]

[OTHER SUMMERIZING REMARKS! USE THE BACK OF THIS PAGE IF NEEDED.]

X. Basic Biographical Information: (TO BE COMPLETED BY STUDENT)

1. Sex:

   1. Male. . . . . ( )
   2. Female. . . . . ( )

2. Age at last birthday:

   1. 16 or under . . . . ( )
   2. 17. . . . . ( )
   3. 18. . . . . ( )
   4. 19. . . . . ( )
   5. 20. . . . . ( )
   6. 21. . . . . ( )
   7. 22. . . . . ( )
   8. 23. . . . . ( )
   9. 24 or older . . . . ( )

3. Marital Status:

   1. Single. . . . . ( )
   2. Married . . . . ( )
   3. Widowed . . . . ( )
   4. Divorced. . . . . ( )
   5. Separated . . . . ( )

4. How many persons do you support or help support? (include yourself)

   1. None. . . . . ( )
   2. One . . . . ( )
   3. Two . . . . ( )
   4. Three . . . . ( )
   5. Four or more. . . . . ( )

5. What is your native language?

   1. English . . . . ( )
   2. Spanish . . . . ( )
   3. Indian Dialect. . . . . ( )
   4. Other . . . . ( )

6. Race or Ethnic Group:

   1. Native American (Indian). . ( )
   2. Black or Afro-American. . . ( )
   3. Chicano (Mexican-American). ( )
   4. White (Caucasian) . . . . . ( )
   5. Oriental. . . . . ( )
   6. Puerto Rican. . . . . ( )
   7. Other . . . . ( )

7. Are you a veteran of the U. S. Armed Services?

   1. Yes. . . . . ( )
   2. No . . . . ( )

8. Do you have any of the following physical handicaps? (Check all that apply)

   1. Legally blind. . . . . ( )
   2. Complete loss of sight . . . . . ( )
   3. Legally deaf . . . . ( )
   4. Complete loss of hearing . . . . ( )
   5. Severe speech impediment . . . . ( )
   6. Loss of free use of one or both arms. . . . . ( )
   7. Loss of free use of one or both legs. . . . . ( )
   8. Handicap requiring use of wheelchair . . . . ( )
   9. I have none of the above handicaps. . . . . ( )

9. How many hours per week do you work for pay?

   1. None . . . . ( )
   2. 1-5. . . . . ( )
   3. 6-10 . . . . ( )
   4. 11-20. . . . . ( )
   5. 21-30. . . . . ( )
   6. 31 or more . . . . ( )

10. Please make the best estimate you can of your family's total income for last year (1971). Include money earned by anyone who contributed to the total family income.

    1. Less than $2,000 . . . . ( )
    2. $2,000 to $2,999. . . . . ( )
    3. $3,000 to $4,499 . . . . ( )
    4. $4,500 to $5,999 . . . . ( )
    5. $6,000 to $7,499 . . . . ( )
    6. $7,500 to $9,999 . . . . ( )
    7. $10,000 to $14,999 . . . . ( )
    8. $15,000 to $24,999 . . . . ( )
    9. $25,000 or more. . . . . ( )

11. How much formal education do your parents or guardians have? Indicate only the highest level (i.e. mark only one alternative in each column).

		Father	Mother
1.	No formal schooling or some grade school only.	( )	( )
2.	Finished grade school.	( )	( )
3.	Some high (secondary) school	( )	( )
4.	Finished high school	( )	( )
5.	Business or trade school	( )	( )
6.	Some college	( )	( )
7.	Finished college (four years).	( )	( )
8.	Attended graduate or professional school (e.g., law or medical school) but did not attain a graduate or professional degree	( )	( )
9.	Attained a graduate or professional degree (e.g., MA, PhD, MD).	( )	( )

12. Which of the following best describes the current (or most recent) occupation of your parents (or guardians)? Mark one in each column.

		Father	Mother
1.	Unskilled worker, laborer, farm worker, domestic, waitress	( )	( )
2.	Semiskilled worker, machine operator, seamstress	( )	( )
3.	Service worker (policeman, fireman, nurse, military noncommissioned officer, etc.).	( )	( )
4.	Skilled worker or craftsman (carpenter, electrician, plumber, etc.).	( )	( )
5.	Salesman, bookkeeper, secretary, office worker, etc.	( )	( )
6.	Owner, manager, partner of a small business or farm; lower-level government official, military commissioned officer	( )	( )
7.	Professional typically requiring a bachelor's or master's degree (engineer, school teacher, etc.).	( )	( )
8.	Owner or high-level executive of large business, high-level government agency, large agriculture enterprise, etc.	( )	( )
9.	Profession typically requiring an advanced degree (doctor, lawyer, college professor, etc.)	( )	( )

13. Indicate the extent of support that you have received from the following sources while attending college (mark one column for each source of support).

	All	More than half	Not half but more than 1/4	Less than 1/4	None
1. Parents, guardians, or other relatives	( )	( )	( )	( )	( )
2. Wife or husband	( )	( )	( )	( )	( )
3. Off-campus job	( )	( )	( )	( )	( )
4. Work-study program	( )	( )	( )	( )	( )
5. On-campus job (not work-study)	( )	( )	( )	( )	( )
6. Scholarship	( )	( )	( )	( )	( )
7. GI Bill, ROTC, or other military associated assistance (not loan)	( )	( )	( )	( )	( )
8. State or government grant (gift)	( )	( )	( )	( )	( )
9. College grant (gift)	( )	( )	( )	( )	( )
10. State or goverment loan	( )	( )	( )	( )	( )
11. College loan	( )	( )	( )	( )	( )
12. Private loan	( )	( )	( )	( )	( )
13. Personal savings	( )	( )	( )	( )	( )

14. In what setting did you group (or spend most of your life).

1. A city of more than 500,000 . . . . ( )
2. A suburb of a city of more than 500,000 . . . . ( )
3. A city of 50,000 to 500,000 . . . . ( )
4. A suburb of a city of 50,000 to 500,000 . . . . ( )
5. A city or town of 10,000 to 50,000. . . . . ( )
6. A town of less than 10,000 . . . . ( )
7. A farm, ranch, or other open location . . . . ( )

15. Have you ever lived in any of the areas named below? Please check all that apply.

1. Model cities area . . . . ( )
2. Federal housing project . . . . ( )
3. Reservation . . . . ( )
4. Farm. . . . . ( )
5. Boarding school for a specified handicapped group (school for the blind, deaf, etc.). . . . . ( ) Please specify ______

____

16. Where are you living this term?

    1. College dormitory or apartment . . . .( )
    2. Fraternity or sorority house . . . .( )
    3. Cooperative. . . . .( )
    4. Boarding house . . . .( )
    5. At home with parents . . . .( )
    6. With relatives or family friends . . . .( )
    7. Private room off campus . . . .( )
    8. Private apartment off campus . . . .( )
    9. Other. . . . .( ) Pleasespecify ____________

    ____

17. What is your class in school?

    1. Freshman . . . .( )
    2. Sophomore. . . . .( )
    3. Junior . . . .( )
    4. Senior . . . .( )

APPENDIX B

Student Interview Sample

INSTITUTIONS IN THE STUDENT INTERVIEW SAMPLE

ALABAMA
- Alabama State University
- Miles College

ARKANSAS
- Southern State College*

CALIFORNIA
- California State Polytechnic College at Pomona
- Deganawidah at Quetzalcoatl
- Hartnell College
- Pomona College
- San Diego State College*
- Shasta College
- University of California at Berkeley*

CONNECTICUT
- University of Connecticut
- Wesleyan University*

DISTRICT OF COLUMBIA
- D. C. Teachers College
- Federal City College

FLORIDA
- Bethune-Cookman College
- Miami-Dade Junior College*
- University of Miami

GEORGIA
- Clark College*

ILLINOIS
- University of Illinois at Chicago Circle*

INDIANA
- Indiana University at South Bend*

IOWA
- Indian Hills Community College at Centerville

KANSAS
- Wichita State University*

KENTUCKY
- Alice Lloyd College

LOUISIANA
- Louisiana State University at Alexandria

MARYLAND
- Towson State College
- University of Maryland at College Park

MICHIGAN
- Calvin College*
- Northern Michigan University

MINNESOTA
- Macalester College*†

MISSISSIPPI
- Coahoma Junior College

MISSOURI
- Southwest Baptist College

MONTANA
- Eastern Montana College

NEW JERSEY
- Drew University*
- Glassboro State College

NEW MEXICO
- College of Santa Fe

NEW YORK
- Borough of Manhattan Community College
- Fordham University (Malcolm King)
- Manhattanville College
- Staten Island Community College
- State University College at Buffalo
- SUNY at Stonybrook

NORTH CAROLINA
- Barber-Scotia*
- Southeastern Community College
- St. Andrews College

OHIO
- Central State University
- Wright State University

OKLAHOMA
  Conners State College of Agriculture
  Langston University

OREGON
  Oregon Technical Institute

PENNSYLVANIA
  Swarthmore

RHODE ISLAND
  Rhode Island College*

SOUTH DAKOTA
  University of South Dakota*

TENNESSEE
  Fisk University

TEXAS
  Southern Methodist University*
  St. Mary's University*
  Tarleton State College

VIRGINIA
  Virginia Union University

WASHINGTON
  Big Bend Community College
  Seattle Central Community College

WEST VIRGINIA
  West Virginia State College*

WISCONSIN
  University of Wisconsin at River Falls

WYOMING
  University of Wyoming*

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*Institutions in the site visit sample.

†Institutions originally declining and replaced by other institutions, but later participating in a limited fashion in the evaluation.

INSTITUTIONS IN THE NO STUDENT INTERVIEW SAMPLE

ALABAMA
- Auburn University

ARIZONA
- Cochise College
- University of Arizona

CALIFORNIA
- California State College at Los Angeles*
- Cypress College
- Nairobi College*
- Stanislaus State College
- University of California at Irvine*
- University of California at Riverside

COLORADO
- Southern Colorado State College

FLORIDA
- Florida A & M
- Palm Beach Junior College
- University of Florida

GEORGIA
- Fort Valley State College

HAWAII
- University of Hawaii

ILLINOIS
- Kennedy-King College
- Northwestern University
- University of Illinois at Champaign-Urbana

INDIANA
- Valparaiso University

KANSAS
- Washburn University of Topeka

LOUISIANA
- Southern University at Baton Rouge*

MAINE
- University of Maine

MARYLAND
- Bowie State College

MASSACHUSETTS
- Boston University
- North Shore Community College

MICHIGAN
- Wayne County Community College*
- Wayne State University

MISSISSIPPI
- Natchez Junior College
- Rust College*

MISSOURI
- Missouri Valley College
- Webster College*

NEW JERSEY
- Ocean County College

NEW MEXICO
- New Mexico Highlands University

NEW YORK
- Colgate University
- Monroe Community College
- St. John's University

NORTH CAROLINA
- Pembroke State University
- Shaw University
- Western Carolina University

OHIO
- Oberlin College*
- Antioch College*

OKLAHOMA
- Central State University
- Northeastern State College

OREGON
- Portland State University*
- Treasure Valley Community College
- Mount Hood Community College

PENNSYLVANIA
- Temple University

SOUTH CAROLINA
- Voorhees College

SOUTH DAKOTA
- Huron College

TENNESSEE
- Lane College
- Le Moyne Owen College

TEXAS
- Bee County Community College
- Lamar University
- Texas Lutheran College
- Texas Southmost College*
- Trinity University

UTAH
- Utah State University

VIRGINIA
- Virginia Commonwealth University

WEST VIRGINIA
- West Virginia University

WISCONSIN
- University of Wisconsin at Milwaukee*

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*Institutions in the site visit sample.

B-5

EDUCATIONAL TESTING SERVICE · SOUTHEASTERN OFFICE

501 Willard Street
Durham, North Carolina 27701
·
Area Code 919 682-7888

March 10, 1972

Memorandum for: Institutional Representatives, ETS/USOE Study of Special Programs for Disadvantaged Students

From: J. A. Davis and Chuck Stone, Project Co-Directors

Subject: Preparations for On-Campus Interviews of "Disadvantaged" Students

Purpose of this Memorandum

As you probably know by this time, preparations are under way for training students who will serve as interviewers from your campus. These students will return after training to conduct six to twelve interviews with their peers. The purpose of this memorandum is to confirm and elaborate on the telephone conversations you have had or will shortly have with professional staff in this office.

Before providing detail on the interview activities, it may be well first to give an overview of your general role with us in the study. An abstract of the study plan is provided as Attachment A, for your information and use.

The Tasks and Responsibility of the Institutional Representative

As institutional representative you have been appointed by the chancellor or president of the institution to: (1) aid the research team in the efficient collection of data and (2) represent the interests of the institution in any matters of concern to the president or others as the study proceeds. You will receive $200.00 from project funds to help compensate for your time and/or to help offset clerical or other costs that may be incurred.

Your principal tasks as institutional representative are:

1. To select students who will serve as interviewers on your campus. You will serve as liason (if needed) between the ETS research team and these interviewers. You should provide us (by phone, collect) with their name and mailing address. (Once contact is made by ETS with these student interviewers, we foresee no necessary involvement on your part beyond what you may desire for the purpose of keeping yourself posted on the study.)

2. To use instructions provided herewith as Attachment B to identify target groups of students and select samples for (a) completion of the student questionnaire and (b) interview.

3. To receive and arrange for administration of a brief (20-30 minute) student questionnaire to the sample of 80-120 students you have selected for the student questionnaire. (Questionnaires and detailed administration instructions are scheduled to be mailed to you the week of March 20) Completed questionnaires are to be collected and returned to ETS.

4. To receive and refer to appropriate institutional officials and program directors, a three-part questionnaire about institutional experience with "disadvantaged" students in mid-April.

The Task at Hand: Arrangements for the Student Interviews

Requirements for Student Interviewers: Student interviewers will be transported to Chicago, San Francisco, or Atlanta as project expense for two days' explanation of the project and training in effective interview procedures. Upon their return to campus, they will conduct six to twelve interviews of selected students, using a structured interview guide. (Attachment C gives some typical kinds of questions that may be asked.) Upon completion of the assigned interviews, they will be reconvened at a central location for joint debriefing and elaboration of their interviewing experience. Students selected for interview will be paid $50 for the two days of training, $25 for the one day of review, and $4.00 for each completed student interview; in addition, we will reimburse or cover their necessary travel expenses to the training and review sessions. Students interviewed will receive $2.00 from project funds for their time in responding.

Selection of Student Interviewers: Interviewers should be students who:

a) are members (preferably upperclassmen in senior colleges) of the target group(s) of "disadvantaged" on your campus

b) are respected by their peers

c) are genuinely concerned with student problems and are articulate (whatever their views)

d) have satisfactory academic standing

e) have financial need

In addition, any physically handicapped student interviewers should be able to travel unaided to the training sites for the dates of the training session in your area.

You have been asked by phone to select student interviewers and have been advised by phone from which target group(s) students should be selected for this task. These students will receive by mail travel policy (Attachment D) and the brief description of the project (Attachment A).

Student interviewers will, as noted, be drawn where possible from the particular target groups of "disadvantaged" students that will be involved on your campus. As you probably know, federal guidelines define "disadvantaged" as (1) coming from a family meeting the National Poverty Criteria (Attachment E) and/or (2) physical handicap requiring special facilities or educational treatment. It should be noted that not every discrete sub-group, by type of "disadvantage," will be used on all campuses. Some sub-groups will be too small to meet sampling requirements; other sub-groups, for one reason or another, may not be amenable to study.

Record of Target Groups

You have been asked by phone to give estimates of numbers of "disadvantaged" freshmen and sophomores, by racial or ethnic group, on campus. Attachment F is a sample of the form we are using for project records to record this information, as you provide it by phone. You may use this form if you like to confirm or change estimates given us by phone.

The Question of Invasion of Privacy

No record will be requested that would permit the ETS research team to know the personal identity of any student responding to interview or questionnaire; in addition, we will insure that any student approached feels under no duress to answer any question he finds objectionable for any reason. Also, we have made every attempt to keep interview and questionnaire focused on the main objectives of the inquiry, which have to do with his progress, satisfactions, aspirations, and recommendations for improvement of his learning situation. We also restate our intent to provide USOE only pooled institutional data, to safeguard institutional privacy.

Institutional Services for Disadvantaged Students: a Study Conducted for U. S. Office of Education by Educational Testing Service

As institutions of higher education, state government educational agencies, the U. S. Office of Education, and the U. S. Congress have increasingly focused their concern on the educationally disequalized -- low income Blacks, Chicanos, Native Americans, Puerto Ricans, whites, and the physically handicapped -- new programs in higher education especially geared to assist these disadvantaged students have proliferated. Within the last year, interest in the comparative success of these programs has intensified and these questions have been posed: (1) which kinds of programs for disadvantaged students have been the most successful and (2) what has been the interrelated impact of these programs -- the disadvantaged students and the institutions of higher education on each other -- especially those which are federally funded? The answer to these questions has been sought by the U. S. Office of Education in a "Request for Proposal" to evaluate such programs. In response to USOE's request for proposal, the Educational Testing Service submitted on Ju[illegible] 14, 1971, a 49-page proposed "Evaluation of the USOE Special Services Programs in Higher Education for Disadvantaged Students." Following a conference in August in Washington, D. C., between USOE officials and ETS staff members, the contract for the proposal, Task B-6, was awarded to ETS to begin August 1, 1971. Co-directors for the study are Dr. J. A. Davis (also Director of ETS's Southeastern Regional Office in Durham, North Carolina) and Mr. Chuck Stone (Director of Minority Affairs for ETS). Other ETS staff members with specifically assigned responsibilities are: Dr. Graham Burkheimer (project associate for research and sampling design and data analyses) and Mrs. Anne Borders-Patterson (project associate for instrument development and field collection of data). With the exception of Mr. Stone, all of the Task B-6 staff members are in the ETS Southeastern office in Durham. Mr. Stone and Mrs. Borders-Patterson are Black.

The purpose of the study, as defined by the U. S. Office of Education in its RFP, is "to provide an assessment of the broad need for special services for disadvantaged students in institutions of higher education, develop an information base for use in future evaluation activities and provide useful program management information to assist the Division of Special Student Services in managing its programs more effectively." Within the context of USOE's use of the term, "disadvantaged" means not only low income Blacks, Chicanos, Native Americans, and Puerto Ricans (who predominate disproportionately at the lower levels of the socio-economic scale) but also low income whites (for example, Appalachia) and the physically handicapped.

USOE outlined six specific objectives of the study:

1. Assess existing federally supported and non-federally supported programs for disadvantaged students, in terms of numbers of students, characteristics of students, and types of programs offered.
2. Assess the effectiveness of the programs and recommend national priorities in terms of meeting student needs.

3. Identify successful programs, using three criteria: beneficial impact on student educational development, retention of program students in school, and the students' perceptions of the programs' ability to satisfy academic, financial and personal needs.

4. Provide the basis for specification of national program priorities and operations through the development of an information system and analytical techniques useful to national management by USOE.

5. Review alternate funding levels and program elements by considering student needs, reasonable estimates of needed federal funds, and those internal and external factors which affect the educational system and over which program directors have little or no influence.

6. Assess the impact of successful program on sponsoring institutions and the extent to which such institutions have expended more of their own resources, changed course structures, established additional programs and increased the number of disadvantaged students as a function of initial federal support.

Toward the achievement of the above six objectives, USOE also defined three principal tasks:

1. A questionnaire survey of a national probability sample of approximately 10,000 students in a selected set of 100 institutions. The sample would be weighted to over-sample institutions with significant numbers of disadvantaged students and would also include at least 20 institutions currently participating in the SSDS program and several which had applied for funding but had been turned down.

2. In-depth interviews within these selected institutions' 1,000 disadvantaged students.

3. An in-depth assessment, through campus visits, of approximately 20 successful programs for disadvantaged students.

For its proposed evaluation ETS, in turn, specified six requirements for the development of the necessary survey instruments, interview techniques, and questionnaires:

1. The utilization of minority group members at all levels and phases of the evaluation. This would include not only minority staff members in the preparation of the research design but Black, Chicano, Native American, and Puerto Rican educators as consultants as well as students from comparable ethnic backgrounds or with physical handicaps for use as interviewers on campuses.

2. An analytical survey of all the existing literature, studies, and programs concerned with the problems of disadvantaged students and what programs at what institutions appear to have been the most successful or the least effective.

3. Sequence #1 -- an all-institutional census of programs for disadvantaged students to determine the numbers and kinds of programs, staff, and types of funding (state, federal, foundation, etc.). For this sequence, 3,000 questionnaires have already been mailed out to all institutions of higher education in the country. Four pages in length, the questionnaire contains 14 items which seek summary information about the college's budget, number of students, disadvantaged students, special services programs, sources of funds, etc.

4. Sequence #2 -- two national probability samples, one of 100 institutions (over-weighted for institutions with significant numbers of disadvantaged students) and the other of 10,000 students from all ethnic, socio-economic, and regional backgrounds at these institutions.

   The institutional survey questionnaire, which will be filled out by an institutional representative designated by its president, is a detailed expansion of the first census questionnaire and seeks specific information about the institution's academic, financial, and social commitment to the disadvantaged student and supportive programs; the student's problems and causes of these problems; the extent to which the success or failure of these programs can be measured by using USOE-established criteria; and the various on-campus and off-campus factors which determine the disadvantaged student's educational growth.

   The student questionnaire, which will be filled out by the students themselves, will seek comprehensive information about the student's demographic background, his parents, his aspirations, the type of high school and his academic record, the most important influences on his thinking, his perceptions of all the aspects of college life and ability to cope with its demands, and, finally, the extent to which various external influences have shaped his judgments and his academic achievement or lack of achievement.

5. Sequence #3 -- an in-depth interview of 1,000 disadvantaged students to be conducted by upperclassmen from their same ethnic backgrounds and from the same colleges. The interviews will be conducted on about 50 campuses which will be drawn from the sample of 100 institutions. These in-depth interviews will provide comprehensive information about the weaknesses and strengths of the student's secondary school education, his problems at home, the weaknesses and

strengths of college life as they affect his educational achievements, his perceptions of the biggest campus barriers to his growth, his perceptions of the programs and persons most helpful to him, and his perceptions of and recommendations for the program for disadvantaged students.

6. Sequence #4 -- campus visits to 30 of the 100 target institutions to be made by senior professional staff (including the director and co-director) and other minority consultants. Included among the 30 institutions will be 20 with the most successful DSSS programs to be compared with 10 successful non-DSSS funded programs. During these campus visits the staff will interview administrators, faculty, directors of programs for the disadvantaged, both disadvantaged and non-disadvantaged students, student leaders, and ethnic group leaders.

It cannot be emphasized too often or strongly that a key component of the Task B-6 study will be the assistance, co-operation, and advice of disadvantaged students, program directors, and college administrators. What goes into the final report to be submitted to USOE will reflect their critical judgments and recommendations for improvement.

Some of the questions which the study expects to answer are:

1. To what extent is the institution committed to the programs and the students they serve?

2. What institutional forces are most supportive and sympathetic, and which are most opposed? (This question will be asked of administrators, faculty, students, minorities, etc., to compare perceptions.)

3. Are the disadvantaged programs fully integrated into the college's learning and social environment, or are they implicitly treated as "separate but equal" operations?

4. What kind of changes (curriculum, guidance, and counselling, etc.) have these programs made on the college?

5. For those who survive in college, what are the strengths and weaknesses of the programs?

6. For those who drop out, what factors are most responsible? Are they the same on various campuses, or do they differ significantly from campus to campus?

7. Do disadvantaged students participating in programs know where to go on campus for the various types of problems they encounter (tutoring, guidance, course election, social isolation, financial difficulties)?

8. How effective is the DSSS monitoring of programs, and what can be done to improve it?

9. Do faculties view these programs as precipitating a diminution of academic quality at their institutions? (What the faculties say will be compared to what the students believe to be true.)

10. What features of the programs would be preserved if federal support were reduced or terminated?

11. What features of the programs should be strengthened by additional federal support?

12. For those non-federally funded porgrams, what kinds of additional support services could be provided, and how much could the number of disadvantaged students be expanded with federal funds?

13. Are federally funded programs more effective than non-federally funded programs?

14. Are those programs which applied for federal funds, but were rejected, able to demonstrate that their programs were just as effective and academically beneficial for disadvantaged students as those programs which received federal funds?

15. What kinds of model programs do the disadvantaged students and program directors view as imperative to achieve maximum program effectiveness and the greatest beneficial impact on the students?

In the study's collection of data, every effort will be made to involve a representative sample of the national institutions of higher learning and their student bodies. This means including colleges with large multi-ethnic student bodies, predominantly Black colleges, predominantly Spanish-speaking student bodies, private and public 4-year and 2-year colleges, small selective colleges, public non-selective colleges, public and private community colleges, religious denominational colleges, colleges with two or more individual programs to serve different ethnic constituencies, colleges with special programs for the physically handicapped, and an even geographical distribution of colleges.

The final report will contain a completion of the study's other two principal tasks: 1) a review of national DSSS program priorities based on an assessment of the effectiveness of the projects funded and the validity of the definition of the concept "disadvantaged" as presently used by USOE; and 2) an estimate of total national need of disadvantaged students in terms of a projected number of students currently not being served. The estimate will include those human and financial resources required for the next five years, based upon USOE projections of student enrollments. In addition, the report will make specific recommendations for strengthening the content of the disadvantaged students' programs and increasing the number and retention rates of such students.

A statement should be made at this point which reflects and is equally concerned about some of the apprehensions voiced by the program directors at the Denver meeting, which was attended by Dr. Davis and Mr. Stone. Implicit in some of the discussion by the directors at the meeting of their Advisory Committee was a fear that any assessment of their program might not be sufficiently sensitive to many of the "hidden" factors in the educational establishment's treatment of minority students, or that even an "objective" evaluation might end up recommending cutbacks in such programs. There can be no questioning of the educational imperative to continue to support and even expand the funds and programs in order to narrow, if not remove altogether, the cognitive skills gap between the privileged and the underprivileged of this society. During the last few years, evaluations and assessments of some programs designed to help the disadvantaged, or more appropriately, the disequalized, have tended to lay the blame for the programs' failures on those being helped. In short, the victimized have been blamed for their inability to absorb the pedagogical innovations and support services offered by the victimizer, even when these innovations and services have been tradition-bound in conception, faulty in methodology, insensitive, and even racist. Too frequently, judgmental conclusions about the merits or lack of success of a program serving disadvantaged or minority students have resulted from a restricted assessment of those forces and variables responsible for the total educational climate. Often, they have been ignored. Consequently, there has been an increasing tendency to question the value of such programs labeled under the rubric of "compensatory programs."

This particular study will represent a milestone in assessing the impact of supportive academic, counselling, financial and social programs on the educational achievement of ethnic minority, low income, and physically handicapped students. The study will go beyond the traditional research parameters of previous studies and attempt to depict the total educational and sociological environment that affects and largely determines a disadvantaged student's academic progress. A large number of variables within the educational system, internal and external, will be analyzed as the disadvantaged student sees it, as the program director sees it, as the college administrator sees it, as the faculty member sees it, as the student peer sees it, and, to the extent to which this is possible, as the researcher (minority or non-minority) sees it. In this way, it is expected a sensitive and fair assessment can finally be made of the factors responsible for keeping the disequalized out of the pale of the American higher educational system.

ATTACHMENT B

SOME RECOMMENDATIONS FOR
SAMPLING OF STUDENTS TO RECEIVE
STUDENT QUESTIONNAIRE

The first step in the sampling process is the identification of target sub-groups of "disadvantaged" Freshmen and Sophomores on your campus. For purposes of this study, the major sub-groups are the poor and the physically handicapped (See Federal Guidelines). The poor can be broken down into further sub-groups by ethnic or racial origin; this will give a total of 7 sub-groups; as follows:

1 Physically Handicapped
2 Poor, American Indian
3 Poor, Black
4 Poor, Mexican American
5 Poor, Puerto Rican
6 Poor, White
7 Poor, other ethnic or racial group

It is possible that all 7 sub-groups exist on your campus; for purposes of this study, however, a target sub-group will be defined to exist on a campus only if there are 25 or more individuals in a given sub-group in the combined Freshman and Sophomore class.

The number of target sub-groups on your campus will determine the size of the sample of disadvantaged students from your school to whom the Student Questionnaire will be administered. These sample sizes are given in Table 1. It should be noted that the Table also calls for "Students in General" who are to be given the Student Questionnaire. "Students in General" are all Freshmen and Sophomores on campus who are not poor or physically handicapped.

Table 1.

Numbers of Students to be Given the Student Questionnaire

Total number of Target Sub-groups on campus	Number of disadvantaged students to be selected	Number of "Students in General" to be selected	Total number of students to be selected
1	55	25	80
2	70	25	95
3	90	25	115
4	100	25	125
5	100	25	125
6	108	20	128
7	112	20	132

When there is more than one target sub-group on campus, it must be determined how many students should be sampled from each target sub-group. Generally, the sample sizes should be proportioned to the size of the respective target sub-groups. Suppose, for example, your institution has 3 target sub-groups: sub-group A consists of 500 persons, sub-group B consists of 450 persons, and sub-group C consists of 550 persons (in other words, the sub-groups are of about equal size). In this case it would be appropriate to select 30 from each sub-group.

On the other hand, if there are three target sub-groups of 158 in sub-group A, 145 in sub-group B, and 380 in sub-group C, it would be more appropriate to select 20 from each of the first sub-groups and 50 from the latter There is only one restriction on these proportions: under no circumstance can the sample size of a sub-group be less than 15.

After the sample sizes for the sub-groups have been determined, the matter of sampling per se is faced. There are many ways of sampling (all the way from picking those whom you want to be in the sample, to completely random methods); if the study is to be meaningful, however, a random (or semi-random) method should be used.

To begin with, it is most convenient to have lists of the names of Freshmen and Sophomores in each of the target sub-groups. Obtaining these lists is perhaps your most difficult task. Help in completing the lists may be obtained from general institutional records in the registrar's office; from program directors of "Special Programs"; from the office of admissions or student financial aid. Some campuses have found Blacks or other racial or ethnic groups can be identified by leaders in their student organizations, residence hall counselors, or campus ministers.

Once a list is compiled, sampling from the list is more or less mechanical and you may use whatever random method that is easiest for you. One of the easiest techniques is the "every n^{th} name method."

Suppose you have to pick 25 students from a list of 145. First, divide the number of students to be picked (25) into the total number from which you are to pick (145). For the example, this yields 5.8 or about 6 (this is the n in the "every n^{th} name" to be picked). Next, "randomly" choose a number between 1 and n (in this case n=6, and it could be accomplished by rolling a die, use of a random number table, pulling one of 6 slips of paper from a hat, etc.). Finally, starting with that name (corresponding to the random number between 1 and n) pick every n^{th} name on the list. For our example, suppose our random number was 1, we would select the first name on the list, the 7th, the 13th, etc. up to the 145th name on the list.

There are, of course, other techniques of sampling. For the example given, you could have shuffled 145 cards (each of which corresponds to a name on the list) and then dealt 25 cards from the top of the shuffled deck. Or you could have placed 145 slips of paper in a hat and drawn 25 out. Or, you could have used a computer program to simulate this for you.

There is one other matter to be considered in sampling: what to do if some of those persons chosen for participation refuse to do so. This probably will happen in some instances.

To safeguard against this possibility, it is advisable to draw a back-up sample. Then if one of the persons in the first sample does not desire to participate in the study a person from the back-up sample can be used instead. As a rule of thumb, a back-up sample that is 1/2 as large as the original sample will be more than adequate. In practice, the back-up sample can be drawn at the same time as the original sample. For the example given above, you could select 38 names originally from the list of 145 then designate every third person on the list as a back-up (leaving 25 as original sample and 13 as alternates for the back-up sample).

What to Do with the Sample

Project records at ETS will not require or maintain names of students in the sample; we do not want names of students, to insure against invasion of privacy.

However, you will need to maintain a list of the names of students, for your later use in administering the Student Questionnaire.

SAMPLING FOR THE INTERVIEWS

Every sub-group serving as a target sub-group for the administration of the Student Questionnaire will not necessarily serve as target sub-group for the interviews. You have been (or shortly will be) contacted by phone by a member of the ETS project staff for the purpose of advising you of which target sub-groups will be interviewed at your institution.

Sampling for the interviews is considerably simplified once you have sampled students for the administration of the Student Questionnaire. The lists from which you will sample students to be interviewed are the lists of students who have been given the Student Questionnaire.

The numbers of Students to be selected for interviews will also depend on the number of target sub-groups to be interviewed on your campus. These numbers are shown in Table 2. As can be seen from the table, no more than four target sub-groups will be interviewed on any one campus. Generally, there will be one student interviewer for each target sub-group to be interviewed (and this interviewer will be a member of the same target sub-group). These interviewers, named by you, will receive from you the list of student named to be interviewed, after you have sampled them.

The techniques of sampling described above can be readily adapted to this additional sampling problem. Again it is the case that a back-up sample (or alternates) should be selected ahead of time. These names may be given to the appropriate student interviewer before he commences interviewing as long as they are designated as alternates. It must be made clear to the student interviewer, however, that he (or she) should not interview more students than specified in Table 2.

Table 2

Number of Students to be Selected for Interviews

Number of Target sub-groups to be interviewed	Number to be Interviewed from each sub-group	Total Number to be Selected
1	12	12
2	8	16
3	8	24
4	7	28

Please maintain in your office the list of students to be interviewed. ETS will ask the student interviewers to pick up the names of the students they are to interview from you, after they return from training.

ATTACHMENT D

Travel Policy for Student Interviewers

Destination

Interview training sessions will be held in Chicago, March 20-21 at the Oxford House; in San Francisco at the Fisherman's Wharf Holiday Inn, March 23-24; and in Atlanta, March 28-29, at the Sheraton Biltmore. Students will generally be provided tickets to the one training site nearest their college. Student interviewers should arrive the evening before the stated date and will depart for home after 4 P.M. on the last day of training (if travel schedules permit).

Method of travel:

Unless otherwise notified, students will travel by plane or by train. Students are responsible for arranging their own transportation to and from the airport or train station. Students should arrive at least one hour before the plane is scheduled to leave and should check in at the ticket counter immediately in order to confirm the reservation. This is most important!!

Reservations:

All reservations for the plane or train will be secured in advance by ETS. Those students who are advised to travel exclusively by bus will be expected to make their own reservations. All students will have guaranteed reservations made and held for them at the hotels to which they are directed, starting the evening before the specified training date.

Tickets:

Tickets for plane/train will be mailed directly to the student unless his/her institutional representative has specifically requested otherwise. These tickets will be mailed as soon as possible but no later than necessary to insure receipt 48 hours prior to the student's departure for the training site.

Transportation to and from hotel:

At the airport in the training site city, student interviewers should use the regular limosine or airport bus to get to their hotel. Check with the dispatcher at the airport building entrance to be sure you have the limosine that goes directly to your hotel. In San Francisco, airport buses go to the terminal at Union Square in downtown San Francisco; from this point, take taxi or trolly car directly to Fisherman's Wharf Holiday Inn. For students arriving in the training site city by bus or train, taxis may be used to get to the hotel.

Expenses:

Cost of plane/train tickets will be paid directly by ETS. To defray other travel expenses incurred enroute to the training site, an advance of at least $35.00 will be sent to the student by check along with the ticket. Of this amount, $25.00 represents the first day's honararium; the remainder is an advance on travel money. An additional $25 honorarium will be disbursed at the meeting.

For those students making their own bus arrangements, additional money will be provided in advance to cover that expense.

At the end of the first day of training, students will be asked to complete a travel expense report (requiring their social security numbers) so that additional reimbursement can be made, if necessary, for airport limosine or other necessary costs. If the reported travel expenses exceed the initial cash advance, that check will be mailed to the student later. All normal and reasonable claims will be honored; however, students should not expect payment for nonessential expenses of a personal nature (e. g., personal telephone calls, souvenirs).

Meals in the training site city will be included with the hotel reservations and arrangements for them have been made. Any other food expenses must be borne by the student individually.

Problems:

Any student who encounters problems with travel plans should contact his institutional representative or call ETS collect at 919-682-5683 for immediate assistance. For emergencies at the last minute, Dr. J. A. Davis, project co-director, or Mrs. Anne Borders-Patterson will be at the hotel training center eighteen hours prior to the start of the training session, and can be telephoned collect there.

ATTACHMENT E

Survey of Special Programs for Disadvantaged Students in Higher Education

DEFINITIONS

SPECIAL PROGRAM: To qualify as a "special program" under this definition, there should be a statement of institutional record as to the goals and objectives of the special program, with specification of target population, intervention or treatment strategies, and there should be an institutional staff member charged with responsibility for the administration and maintenance of the program. A separately budgeted (e.g., separate line item, noted in other line item, etc.) formal or structured body of activity by the institution for high school graduates (e.g., Upward Bound, Project Opportunity, etc.) or enrolled students, which is not routinely available to or appropriate for the typical entering student but directed toward the more disadvantaged student (see next definition) is usually considered to be a "special program."

DISADVANTAGED STUDENT: By "disadvantaged student" is meant a student who, by virtue of origin from an ethnic minority, a low income group as defined by the national poverty criteria (see below), or by virtue of physical handicaps restricting movement or sensory acuity, has special deficiencies of a social, cultural, or academic nature that set him apart from the regular or modal students at your institution. These are generally students who would require special resources and innovative curriculum to assure their success in the academic environment.

NATIONAL POVERTY CRITERIA*
To fall within the national poverty criteria group, a student must come from a family with annual income not exceeding the amount shown below:

Family Size	Nonfarm	Farm
1	$1,840**	$1,569
2	2,383	2,012
3	2,924	2,480
4	3,743	3,195
5	4,415	3,769
6	4,958	4,244
7	6,101	5,182

If a low-income student comes from a family with more than seven members, add $600 for each additional family member in a nonfarm family; add $500 if the family is a farm family.

The poverty criteria is generally met if the student:

1. lives in federally supported low-income public housing.
2. is part of a family where there is serious mismanagement of income so that little, if any, of such income accrues to the benefit of the student.
3. is from a family on state or federally funded welfare program.

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* *Adapted from Series P60, Number 71, Table 6, Bureau of the Census, U.S. Department of Commerce, July 1970.*

** *All dollar amounts refer to income before taxes.*

EDUCATIONAL TESTING SERVICE SOUTHEASTERN OFFICE

501 Willard Street
Durham, North Carolina 27701
Area Code 919 682-7888

March 28, 1972

MEMORANDUM FOR: Institutional Representative, ETS/USOE Study of Special Programs for Disadvantaged Students

FROM: J. A. Davis and Chuck Stone, Project Co-Directors

SUBJECT: Preparation for On-Campus Administration of Student Questionnaire

REFERENCE: Our Memo of March 10, 1972

Copies of Subject Questionnaire, Survey of College Students and Special Programs [OE FORM 192 (OPPE)], have been (or shortly will be) mailed to you. The number of questionnaires provided you, as specified in reference memo, were based on the number of target groups identified by you at your institution. These groups may or may not correspond to the groups to be interviewed on your campus, and our latest contact with you indicates they are the ones checked below.

1. Physically Handicapped
2. Poor, American Indian
3. Poor, Asian American
4. Poor, Black
5. Poor, Filipino
6. Poor, French Bilingual
7. Poor, Mexican American
8. Poor, Puerto Rican
9. Poor, Spanish American
10. Poor, White

Ten additional questionnaires have been sent to you for unforseeable contingencies which may arise, two of which you may keep for your files.

You will notice that each questionnaire is contained within a plain brown envelope. It is to be given to the student in this form, and he is to seal his completed questionnaire in the envelope before returning it to you. To insure confidentiality of the students' responses, do not write the students name or any other identifying information on the envelope or on the questionnaire. Each questionnaire for your institution is numbered serially. This number is not to be used for identifying students, it is merely a unique code number to be used to identify separate records of information in the data set prepared for USOE.

The actual administration of the questionnaire is a matter we leave to your discretion, since different approaches may be more or less appropriate for different institutions. To aid in this matter, however, suggested approaches are outlined in Attachment A to this memo. We urge you to maintain records of which students in the sample have actually completed the questionnaire, and to maintain these lists until we acknowledge receipt of completed questionnaires. These records are for your follow-up purposes only and we do not desire this *information or any other information which could be used to identify students with completed questionnaires*.

An explanatory statement of the purposes and safeguards of the study is included as Attachment B. We feel that the explanations should be given (or read, depending on the option of administration you choose) to all students who are to complete the student questionnaire, to impress upon the students the seriousness and meaningfulness of the research and to allay any fears that they might have that the data collected would be used against them. This should (1) increase the validity of information provided by the student and (2) increase the response rate under certain options of questionnaire administration. The explanation is not offered as a "standardized" form, but rather as suggestive of the *meanings* that we would like to see transmitted to the students. Feel free, therefore, to paraphrase the explanations in any way that would be appropriate for students at your institution. Reproduction of the explanations on the letterhead of your institution, if these are not read to students but transmitted to the students individually with the questionnaires, is strongly advisable in that it would most likely increase the credibility of the study by a specific indication of college sanction.

It is recognized that questionnaire studies are frequently unpopular with students. In this case, the problem may be aggravated on some campuses by the fact that a number of minority groups are involved, and a standard questionnaire directed to several different cultural groups will pose some irrelevant tasks, or even seem insensitive to particular heritages and expectations. The manner in which the task is presented, and your personal knowledge of your students and campus, can be important in assuring a trouble-free completion of the task.

There may be, of course, some students who will raise serious objections (even though the questionnaire has had substantial student input). *No one should be coerced to respond*. Students who raise serious questions may be informed that not only are there safeguards in design of the study toward assuring only reasonable generalizations, but also that findings will be moderated by a panel of student leaders before the final report is presented. The more free response interviews to be conducted on some campuses by students working with the study team also represents an attempt to let the real nature of student opinion show through, whatever the inadequacies of a questionnaire approach.

We would urge that the selection of the sample (if not already accomplished) and administration of the questionnaires proceed immediately, toward completing the task before thoughts of approaching final exams begin to intrude upon the students. We would hope that all questionnaires be returned no later than May 1.

When all questionnaires from your students have been returned to you, please use the box in which they arrive to return them to this office. Return all questionnaires completed and blank, other than the two kept for your files, using parcel post "Special Handling" rates using the enclosed mailing label. The most convenient method of handling the postage is for you to pay the postage from your funds and for us to reimburse you. Do not hesitate to call us *collect* if any unforseen problems or questions arise.

ATTACHMENT A

SOME SUGGESTIONS FOR ADMINISTRATION OF

THE STUDENT QUESTIONNAIRE

There are at least three basic methods of administering the Student Questionnaire to the students you have sampled: (1) Distribution of the Questionnaire and any cover letters or attachments to the students at their individual campus addresses with instructions for the questionnaires to be completed and returned to you at the student's early convenience; (2) Assemblage of the entire sample group (or of several large sub-groups) at one time in some central location for group administration -- with provisions for students who do not make it for the administration to complete the questionnaire; and (3) Sending a message to each student asking him to stop by your office (or some specified location), during scheduled hours or a time convenient to him, where he can be administered the questionnaire on the spot.

Each of these methods has advantages and drawbacks. Method 1 places the least constraints on the individual student, but distribution and collection of questionnaire forms becomes a problem for you. Distribution may be accomplished (a) through campus mail, (b) through residence hall managers, if appropriate, or (c) through any appropriate communication system at your institution that would seem best for you. Unfortunately, campus communication systems are not always as speedy or as reliable as one would desire. Also, based on past experience, we estimate that even after as many as 4 follow-up notices, you can expect a return rate of no better than 80%. The last 20% of the completed forms will become more and more difficult to obtain, and since they have already been distributed, you will have none available for administration to your back-up sample (or alternates).

Method 2 is the most demanding on the student, requiring him to be at a given place at a given time. This method, however, may well be the easiest one to implement as far as your time is concerned. If you were to send notices to both your original sample and alternates, the "no-show" problem should be a minimum and follow-up should be necessary for only a small number of students, if any. The questionnaire is not distributed until the student is present and this aspect of the problem of the previous method is not encountered. There are, of course, other problems to be encountered -- obtaining an available space to accommodate the large group; administration at a time when most students can reasonably be expected to be free and will respond; etc.

Method 3 is the method which, if not delegated, would likely take more of your time than any other. It has the advantages of flexibility in terms of student's time and avoids the problem of commitment of forms to possible non-respondents. It requires, however, some one -- perhaps a secretary -- on call during the times students may come to the specified location. Also required would be space for up to 5 or 10 students who could be administered the questionnair simultaneously (in the event of simultaneous or overlapping student arrivals) -- this could be an adjoining office, classroom, etc. This method offers, pernaps, the best insurance against a lengthy follow-up or rescheduling on your part, and offers what we believe is the maximum probability of completion of all questionnaires scheduled for administration at your school. Should you use this method, we would urge you to notify all students selected for your original sample as well as alternates. Then, assuming your school is to administer X questionnaires, you would administer the questionnaires to the first X students coming by the appointed place.

ATTACHMENT B

EXPLANATIONS CONCERNING THE QUESTIONNAIRE YOU HAVE BEEN ASKED TO COMPLETE

You have been randomly selected from a list of students at this college to join 12,000 other students in 120 colleges across the nation in providing some important information for a study that is being conducted for the U. S. Office of Education. This college was, in fact, randomly selected from among those institutions of higher education in the U. S. This federal study, which is being conducted under contract to Educational Testing Service, has as its major purpose the examination of different kinds of activities and programs provided for students by U. S. Colleges and Universities.

Although the study is concerned in large part with budgetary information and description of a variety of programs, it was decided early, for obvious reasons, that student opinions and judgments were essential. On some campuses, some students will be interviewed. On all campuses in the study, a sample of approximately 100 students will be asked to record their opinions and plans using the questionnaire form you have just received.

Although you are but one of many students receiving this questionnaire, relatively small numbers of students on any particular campus are involved and your responses are in fact, quite important.

You may notice that the questionnaire seems lengthy, and feel that it will take too much of your time to complete. If, however, you look closely at the questionnaire you will find that there are no right or wrong answers to be decided upon, and that the majority of the questions seek fairly general information about your background, your reaction to college, and your plans for the future. The completion of the form should take a minimal amount of time (in early testing of the questionnaire, it was found that most students could complete the questionnaire in less than 30 minutes). Further, the major intent of the entire study is to provide information to federal funding resources and university planners so that they can better serve the needs of students, like yourself, in how federal monies are spent. We hope that you feel this is an important enough goal to warrant your taking the brief time to complete the form.

Some of the questions on the form may not seem particularly relevant to you in light of what has previously been described. Since, however, different programs and activities provided by the institution may be designed to specific types of persons (for example; veterans), some of the information requested is for the purpose of identifying the kind of student you are; other questions are asked to gain information about your attitudes and opinions in general, and about your pre-college training. As specified in the instructions, you may omit any question which you consider unduly personal or objectionable for any reason.

Extreme efforts have been made to insure the confidentiality of your responses. The research organization conducting this study has assured the college that no information will be provided to the college or to the Federal Government that can be identified with any individual student. The questionnaire has been given to you in a plain envelope on which there is no identifying information; you have been asked to seal your questionnaire in this envelope upon completing it. Therefore, officials

ATTACHMENT B -- page 2

at this school will not know how you responded - even though they will know who was given the questionnaire, and have been asked to maintain a check off system so that they may follow up those who do not respond. The members of the research organization conducting the study and the U. S. Office of Education will know how a given questionnaire has been answered, but this college will not provide them the names of persons who have been given the questionnaire, and therefore they will not be able to identify any answers with any specific student. You will notice that a code number has been stamped on your questionnaire; this number is for record keeping purposes only, and can not serve to identify you with the answers you give, since your name will not be given to those on the research team who will open your sealed envelope.

We appreciate your time in providing the information. It can be an important part of improving the programs, services, and educational opportunities for a generation of students to come.

INSTITUTIONS FOR INTERVIEW TRAINING IN ATLANTA, GEORGIA

Institution	Target Groups to Be Interviewed: Black	Mexican American	Native American	Physically Handicapped	Poor White	Puerto Rican	Other	Number of Interviewers	Number of Students to Be Interviewed	Number of Interviews Conducted
Alabama State University (Montgomery)	X							1	12	11
Miles College (Alabama)	X							1	12	9
Southern State College (Arkansas)	X				X			2	16	16
University of Connecticut	X			X	X	X		4	28	24
Wesleyan University (Connecticut)	X							1	12	12
Federal City College (District of Columbia)	X				X			2	16	14
Bethune-Cookman College (Florida)	X							1	12	12
Miami-Dade Junior College (Florida)	X				X	X	X[2]	4	28	24
Clark College (Georgia)	X							1	12	10
SUNY - Stony Brook	X							1	12	4
Louisiana State University - Alexandria				X	X			2	16	16
Coahoma Junior College (Mississippi)	X							1	12	12
Glassboro State College (New Jersey)	X					X		2	16	13
Fordham-Malcolm-King (New York)	X					X		2	16	14
Borough of Manhattan Community College (New York)	X				X	X	X[1]	4	28	25
Staten Island Community College (New York)	X				X	X		3	24	10
Manhattanville College - Purchase (New York)	X							1	12	9
Barber-Scotia College (North Carolina)	X							1	12	8
Southeastern Community College (North Carolina)	X		X		X			3	24	24
St. Andrews Presbyterian College (North Carolina)	X			X	X			3	24	23
Fisk University (Tennessee)	X							1	12	8
Southern Methodist University (Texas)	X	X						2	16	14
Tarleton State University (Texas)					X			1	12	12
Virginia Union University	X							1	12	12
University of Miami (Florida)	X						X[2]	2	16	8
Totals 25	23	1	1	3	10	6	3	47	412	344

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[1] Asian

[2] Cuban

INSTITUTIONS FOR INTERVIEW TRAINING IN CHICAGO, ILLINOIS

Institution	Target Groups to Be Interviewed Black	Mexican American	Native American	Physically Handicapped	Poor White	Puerto Rican	Other	Number of Interviewers	Number of Students to Be Interviewed	Number of Interviews Conducted
University of Illinois - Chicago Circle	X	X	X			X		4	28	19
Indiana University - South Bend	X				X			2	16	11
Indian Hills Community College (Iowa)	X			X				2	16	16
Wichita State University (Kansas)	X	X						2	16	14
Alice Lloyd College (Kentucky)					X[1]			2	12	12
Towson State College (Maryland)	X				X			2	16	16
Calvin College (Michigan)	X							1	12	10
Southwest Baptist College (Missouri)					X			1	12	12
Northern Michigan University			X		X			2	16	12
SUNY College at Buffalo	X				X			2	16	3
Central State University (Ohio)	X							1	12	12
Conners State College of Ag. (Oklahoma)	X		X		X			3	24	24
Langston University (Oklahoma)	X							1	12	12
West Virginia State College	X				X			2	16	16
Rhode Island College	X							1	12	12
University of South Dakota			X					1	12	11
University of Wisconsin - Riverfalls					X			1	12	12
Drew University (New Jersey)	X							1	12	12
Swathmore College (Pennsylvania)	X							1	12	12
University of Maryland - College Park	X				X			2	16	8
D. C. Teachers College	X							1	12	10
Saint Mary's University (Texas)		X						1	12	5
Total 22	16	3	4	1	10	1	0	36	324	271

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[1] Two interviewers for one target group.

INSTITUTIONS FOR INTERVIEW TRAINING IN SAN FRANCISCO, CALIFORNIA

Institution	Target Groups to Be Interviewed									
	Black	Mexican American	Native American	Physically Handicapped	Poor White	Puerto Rican	Other	Number of Interviewers	Number of Students to Be Interviewed	Number of Interviews Conducted
California State Polytech (Pomona)	X	X						2	16	8
Deganawidah-Quetzacoatl University (California)		X	X					2	16	14
Hartnell College (California)		X						1	12	6
Pomona College (California)	X	X						2	16	14
San Diego State College (California)	X	X					X[1]	3	24	7
Shasta College (California)			X		X			2	16	8
University of California - Berkeley	X	X	X	X			X[1]X[2]	6	30	20
Eastern Montana College			X	X	X			3	24	3
College of Santa Fe (New Mexico)		X						1	12	12
Oregon Technical Institute					X			1	12	12
Big Bend Community College (Washington)		X			X			2	16	8
Seattle Central Community College (Washington)	X	X	X	X[3]	X[3]		X[1]	5	30	4
University of Wyoming - Laramie	X	X	X		X			4	28	20
Totals 13	6	10	6	3	6	0	4	34	252	136

[1] Filipino

[2] Asian

[3] One interviewer will handle both groups.